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ABSTRACT

This collection of articles presents ideas about the value of children's play and suggests practical ways to implement good play experiences and select appropriate play materials. Articles examine play as an agent of social values, play and thinking, play and child development, the environmental opportunities for play factors that can destroy the value of play, play for the convalescent child, specific learning processes and play, and play as a valid educational tool. Recent books and films on play, and age-appropriate toys are listed. (CS)

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# Play:

## Children's Business

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# Play:

## Children's Business

And A Guide to Play Materials

Patricia Maloney Markun  
Editorial Associate for Bulletins

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# Foreword

How good it is to have come full circle! An ACEI bulletin carrying this same title was first published in 1963. Since that date the drive for more and more structured learning has almost pushed play underground. But now that the drive has peaked, play, in the eyes of professionals and the general public, again seems to have come into its own not only as a respected activity but as a worthwhile educational tool. In this bulletin we have a 1974 perspective on play which should be helpful in further reinstating its respectability.

The thinking of the authors is based on both research and the experience of having lived with children. Play is defended from social, intellectual, emotional, and physical angles. In addition, some of the factors that destroy the value of play are set forth. A new section in the bulletin deals with play for the convalescent child, and a bibliography of recent books dealing in one way or another with play has been added. The film listing has been extended and annotated.

Various portions of the text carry practical suggestions for (a) implementing good play experiences and (b) selecting play materials that will serve the dual purpose of providing children with opportunities to have fun and, at the same time, be confronted with many comfortable challenges. Specific help in the wise selection of play materials is to be found in the graph, "Which Toys for Which Age?", reprinted from *Changing Times* and in the updated "Guide to Play Materials." Grateful acknowledgement is made to the designers and manufacturers of good play materials; but readers are constantly reminded that investing in good manufactured materials is not synonymous with providing children with good play experiences. Throughout the bulletin runs a thread of continuity pointing to the importance of helping children profit by the play challenges to be found in their own environment.

Scattered over the pages are quotes from many authorities supportive of the idea that play is valid. To these quotes I should like to add one from Jerry, the four-year-old son of two physicians. In the mornings Jerry attended a nursery school and in the afternoons he was enrolled in a play group. One afternoon as the adult leader of the group attempted to incorporate him into an organized activity Jerry shook his head and continued to sit alone on the steps with his head cupped in his hands. From my vantage point as an observer I heard him say, "But I don't want to play something. I just want to play." It is our hope that this bulletin will help many other Jerrys, both large and small — and Janes, too — attend to their important personal business of play.

Neith E. Headley  
ACEI Staff Consultant

# **Play: An Agent for Learning Social Values**

By Neville V. Scarfe

*Neville V. Scarfe has recently retired as Dean of the Faculty of Education, University of British Columbia in Vancouver, B.C., Canada.*

Play is Mother Nature's clever way of ensuring that young people (and old) become educated of their own accord. The urge to play is exactly the same as the urge to undertake research. It is part of man's persistent desire to know more about himself and the universe. Play is spontaneous desired research activity carried on for its own sake. It is always a form of experimental inquiry, and the very business and lifeblood of childhood. Play is also the characteristic quality of all adult activity whenever adults really wish to learn.

## **Defining Work and Play**

Work and play are not opposites except in popular parlance. Work is a mathematically measurable quantity of effort or power. Play is measured only subjectively as an emotional quality. The degree to which any activity is desirable, pleasurable, and rewarding is the measure of its play value. It does not refer to any amount.

Most of Einstein's work would have been dubbed "play" by him. Mozart would have labeled his efforts as play. Play is essentially creative and often artistic. And it flourishes in freedom. Piaget claims that play is the essential prerequisite to all intellectual activity. During play the thought processes are most effectively developed. The aesthetic sense in both children and adults also develops particularly well through play and sometimes only when activities take on the characteristics of play.

## **"Let's Pretend" Play**

I wish to stress here the fundamental importance of fantasy play or "let's pretend" in social development, when play is essentially the "business of children and of adults." Role playing or acting out the problems of living in an imaginary social world with all its odd customs, strange mores, and impossible taboos, helps both young and old to grow to maturity and achieve cultural harmony with their environment of people and things.

Children find it easy to play with sand, clay, and water. Inanimate objects can be controlled and organized, but it is very difficult to manipulate human beings. They will not allow themselves to be guinea pigs, particularly if the research is into emotional behavior. Thus children must invent friends or pretend to be grownups. Adults daydream or put up a brave front or create an image in some role-playing mirage.



As far back as 1925, Arnold Gesell said that "the brain grows at a tremendous rate during the pre-school age, reaching its mature bulk before the age of six, and the mind develops at a corresponding velocity. The infant learns to see, hear, handle, walk, comprehend, and talk. He acquires an uncountable number of habits fundamental to the complex art of living. Never again will his mind, his character, his spirit advance as rapidly as in



this formative pre-school period of growth. Never again will we have an equal chance to lay the foundations of mental health.”\*

The kinds of education achieved in early childhood are those that we call values or attitudes or outlooks or personality development or styles of behavior. Some people would say social assumptions, prejudices, and ingrained biases. During the early years, attitudes of enthusiasm for learning, kinship with books, courtesy and respect for others can be thoroughly developed and will be very difficult to eradicate later. At the same time, some young children learn to hate books, to decry academic learning, to despise music, and have unfavorable attitudes toward art that will also be difficult to eradicate. Moreover, these things are caught as if by infection by contact with adults, not directly taught.

### **Advantages of Nursery Schools and Kindergartens**

Some think that young people gain an advantage if they can learn to read and write earlier than is normal among average children. This is a fallacy. On the other hand, it is true to say that those children who have been to nursery school and kindergarten do have an advantage over those who have not. The advantage is not in the ability to read or write. The advantage is in their attitudes toward learning to read and write — in fact, their attitudes toward all forms of learning. The advantage that children get by going to nursery school and kindergarten lies in their positive outlook and generous attitudes toward society. These children are much more socially mature, much more able to get on in the world, much more able to deal with their fellows. In fact, they are more pleasant, congenial people with the advantage of eagerness, curiosity, and enthusiasm. These are no mean advantages. Because they are more eager to learn and more curious, they learn to read and write more effectively later on. It is not having had a great deal of formal instruction in reading and writing at the age of four that benefits them, but because they had much encouragement to think for themselves and a number of different experiences to give them an inquiring outlook they are at an advantage in learning to read and write later on.

### **The Crucial Early Years**

The early years are the crucial years simply because the important things in human growth and development are attitudes, emotions, and the intellect. In these early years the growth of good attitudes and sympathy are more important than acquiring mathematical skills or scientific expertise. This is saying a great deal because all these skills are indeed very important later on. Yet kindness is still one of the most important attributes of all human beings, and kindness is learned in the early years.

Since we know that much is learned very effectively for a lifetime in early childhood, it seems important to make sure of a high quality of learning at this stage. Since children are very impressionable and easily influenced by adults, it seems important that the quality of the adult with whom they come in contact should be of the highest, because they tend to learn by imitation and infection. Good attitudes are catching; desirable outlooks are acquired by osmosis and become very effectively ingrained in the early years.

\* Arnold Gesell, *The Mental Growth of the Pre-School Child* (New York: Scholarly, 1962). Used with permission.

(On the other hand, we are most anxious that young children shall not grow up to be dupes in the hands of malicious adults. We wish them to grow up to be intelligent, critical, questioning persons who will not be swayed solely by their emotions but will be rational and sensible. Therefore, in early childhood they should have opportunities to exercise their thinking powers and be encouraged to make decisions that are reasonable, sensible, and fair. Not only should the teacher of young children be a person wholly admirable and worthy of imitation as a person, but he or she should be highly skilled in encouraging young people at both work and play to think for themselves so they can avoid being manipulated to an excessive degree when they grow up.

Adequate self-esteem is also very important and requires that parents and teachers provide children not only with an affective climate that tells them they are loved and worthy but also with a cognitive climate that allows the child to be competent as well as loved. Unfortunately, we make too little provision for helping young minds understand our world, or for questioning what they see and hear. Inquiry skills and critical thinking can start very early.

This need for achievement and for understanding the world are underestimated in our plans for early childhood education. Such cognitive skills are their only bulwark against the massive pressures that will undoubtedly beset them on all sides in later years.

Nevertheless, the most important aspect of learning during early childhood is social learning or social growth, much of which can be developed through play. Through play we develop willingness to collaborate, to work together, to give consideration to other people's needs; in other words, willingness to restrain one's more aggressive animal nature.

### **Socialization Through Play**

Sir Kenneth Clark, in his famous book *Civilisation*, says that as a result of a lifelong study, he has developed a number of beliefs. "Order is better than chaos, creation is better than destruction, gentleness is superior to violence, forgiveness is more desirable than vendetta, knowledge is preferable to ignorance, and human sympathy more valuable than ideology." Finally he says, "I believe in courtesy, the ritual by which we avoid hurting other people's feelings by satisfying our own egos."

Sigmund Freud also says that "an indispensable feature of civilization is the willingness of people not to say and not to do many things they might want to say or do." Thus civilization often depends on not communicating thoughtlessly with others, i.e., on good manners. Good manners consist not only of our willingness to say what we are expected to say, but also of our self-control in keeping ourselves from saying what we really feel or really want to say, but which might hurt others. In other words, civilization depends on the ability of people to develop a more self-controlled attitude about what they say, and how, when, and where.

Democratic society, decency, and progress depend on the willingness of people to forego whatever sense of release or catharsis might come from a screamed expletive or any angry outburst, i.e., to inhibit our animal emotions and talk to others with respect. Some of the most essential values

of enlightened living come only through slow and sometimes painful socialization. In the service of these, play fills one of its most important functions.

To arrive at emotional maturity, a child must build a solid self-esteem, a store of warmth and loving-kindness, and a strong sense of inner security. For this to come about he must, of course, be treated with esteem; he must meet loving kindness; he must have a basis for security in the people on whom his life depends. But even in the best circumstances restrictions must be faced, and losses must be borne. To accept and to bear these without damage it is necessary that the stream of bitter feeling and of hurt inevitable in the lives of the children drain off harmlessly, without injury to the basic core of their being. Play offers the means for this. Whether through the pounding of clay, the "killing" of mother, father, or baby dolls, the painting of bombs and destruction, or the "letting off steam" on the playground, somehow the child must find a needed outlet for feelings and reactions that cannot be expressed so safely in any other way, and that, bottled up, could contort and abort his development.

In positive ways, too, we must realize that play functions to promote social values. Sensitivity to the needs and views of others does not develop in a vacuum. It is the result of a long sequence of learnings. In the beginning a model is necessary. But in addition to example, the child needs time and opportunity for practice, and where can he find a better situation than the give and take of his play groups? Busily engaged in constructing a dam of mud or a wall of blocks or a labyrinth of ladders and planks, he confronts the challenge of natural forces and the obstinacy of materials. Intent on an objective shared by his playmates, he learns the value of listening to the other fellow's opinion, of altering his way to include the suggestions of others. In another kind of group situation, he discovers the possibility of sharing, the relative painlessness of waiting his turn, the rewards of generosity.

Learning to live socially with other people is not something that is suddenly achieved. It is a slow process that takes much care and attention to develop. Learning to share, to take turns, and to face up to the problems of hostility and animosity and to discuss them in some reasonable fashion is by no means easy; it takes a long time. A large number of different experiences must be carefully discussed for such learning to be effective.

### **Preschools and Play Groups**

You will notice that I have said a large number of experiences. These can be haphazard, but it is much better if they can be planned, contrived, and organized. This is why we need a teacher, and why we have nursery schools. Rich, varied, and stimulating experiences do not necessarily happen by accident or without careful planning or without resources and material.

One of the important aspects of experiences is that they provide children with opportunities to talk and discuss. It also provides them with an enriched vocabulary. They will have more words to use, more ideas to understand, and a greater facility, therefore, in thinking. We know that a high correlation exists between ability to use a large variety of words and the growth of intelligence or intellectual competence. Children who simply

stay around home do not necessarily get the challenging and stimulating experiences that could be provided at a nursery school or in a play group, particularly if the teacher takes them on expeditions into woodlands, farms, fish canneries, ports, and to the many events that take place in society. More important are the discussion and talk that go on as a result of experience, and still more important are the opportunities for fantasy play and re-enactment of experiences. Children love to imitate or play again in imaginative form what they have experienced outside the school. There must, therefore, be much opportunity and materials for this recreative play and its concomitant development of social skills.

Absolute freedom is anarchy and very soon, therefore, restricts freedom through fear. Ideally we wish to restrict freedom only through intellectual thought and discussion in order to demonstrate that there is sense in the restrictions under which we voluntarily guide our lives. But children also expect to be provided with certain reasonable guidelines, rules, or routines that give them a sense of safety and security. They need opportunities for experiment and adventure, but they also need the essential safety, security, and love that protect them and free them from unnecessary fears and insecurities.

A good teacher or parent, therefore, is a strong, secure, calm, safe person who offers protection, love, and concern but knows how to strike a very happy balance between freedom to adventure and the security and safety that a sympathetic adult provides. Children need the feeling of adventure within the constraints of some routines and rituals because they like to feel both free and safe.

We find no great difficulty in adapting our lives continuously to the changing conditions that Mother Nature imposes, but many things do not change, and one of them is human nature. Children learn in very much the same way now as they did a thousand years ago, i.e., through their senses. If left to themselves, they play with sand and water all over the world, as they have done from time immemorial. I hope they will be allowed to continue to play with sand and water in their own prehistoric way.

Play activity keeps us sane, helps us work out our worries, but above all allows experimental inquiry to have free play. No wonder play has been called the "serious" business of living, even though most people enjoy the freedom and the creativity of a desirable activity. Of course, business implies hard work, but no one works harder, more persistently, or in a more absorbed fashion than those at play. A Utopia is a place where work is play.

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"Cognitive growth is only one kind of development play facilitates. When we consider values we find play filling another extremely important role. The values we see emerging in children's play relate to courage and curiosity, commitment without reserve, self-acceptance, optimism, gaiety, cooperation and emotional maturity."

"We need to see what enormous and necessary contributions play and creative activities can make toward the learning and thinking abilities of children." — Ruth Hartley. "Play, the Essential Ingredient." *Childhood Education*, Nov. 1971.

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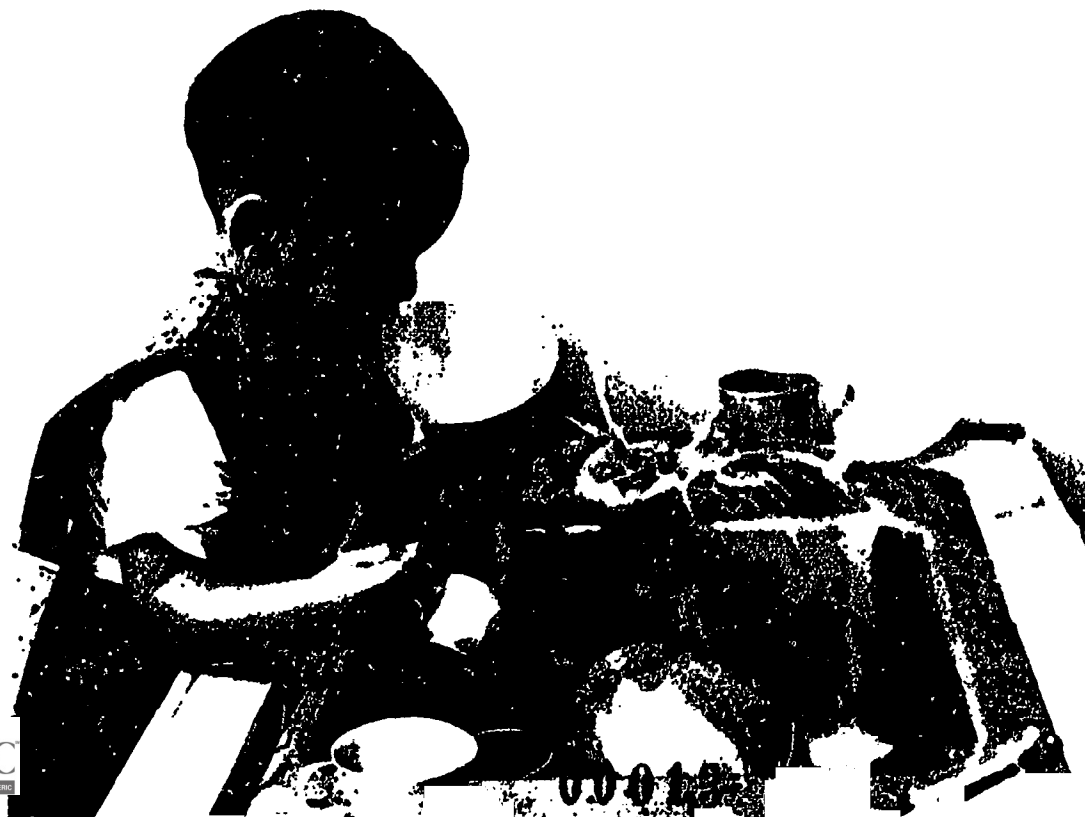
# Play and Thinking

By Dorothy W. Gross

*Dorothy W. Gross is on the Faculty of Graduate Programs at Bank Street College of Education, New York City.*

All over the world children play. Hopscotch, dolls, peekaboo, hoops and balls, marbles, hiding and chasing, cat's cradle and chants, walking on stilts, rope jumping, pretending to be heroes and queens — all that and more, children play. Even in the face of disappointment and sadness and illness, although these may be tempering, children play. In the face of hunger, and to help bear it, children play. The content, the form, the style of play will surely be shaped and influenced by children's concerns. But only when very sick or deeply troubled or forced to cope regularly with work and heavy responsibility do children suspend their natural outpouring of play. They play for pleasure out of a deep inner need to engage with things and people in that way of lightheartedness and intensity that feels more real than reality.

That playing is so persistent and universal suggests an adaptive value for it, a significant role in development. We have only begun to recognize this in recent years, although it has been there for the seeing all the while. The key to the puzzle is the self-evident fact that play changes as children grow older. This fact is too often taken for granted without considering the implication — that play is tied to development. As children mature, their play mirrors the increasing differentiation that characterizes maturing — differentiation of feelings, of interactions with others, and of understandings. Accordingly, by studying play one can learn much about development. The aspect that will be discussed here is play and its relation to understanding.





That play reflects and reveals a child's developing powers seems clear. Through play, children enact and practice their growing grasp of the world in ways appropriate to their culture and their individual life experiences as well as to their developmental stages. Erikson described child's play as an effort "to deal with experience by creating model situations and to master reality by experiment and planning." This is certainly a definition that focuses strongly on play-as-thinking, and one might add to it: not only does play reflect experiment and planning but concentration, attention to detail, and inventiveness. These, of course, are capacities — to hypothesize and to organize, to focus, to integrate parts into wholes and to invent — that stretch as children develop. So, too, does their play. Whether it is preparation for life, practice of skills, or pure pleasure alone, play is linked to organic change, or development.

### **THE DEVELOPMENTAL STAGES OF PLAY**

Accordingly, it will be useful, in order to understand play's relation to thinking, to trace the stages of mental development from infancy through the middle years, following Piaget's general structure, and to look at the play that typically accompanies and grows out of these. We must ask for each stage: What do children play? What do children play with? How do they play? And what is the connection with thinking?

#### **Infants [0-18 months]**

In the first year of life play does not appear very different from normal daily activity. Constant body movement, use of all the senses, interest in all stimuli, human and non-human, are characteristic of both infant life and infant play. The objects of play are threefold: one's own body, others' bodies, and concrete objects. The ways of play are exploratory, inventive, repetitive, tireless, eager — random as a butterfly, purposeful as a beaver. Have you watched a baby's eyes follow the path of a moving light? Focus on his/her mother's face? Have you noticed him/her tap, pull, hold, touch fingers, toes, belly, genitals? Have you seen his/her pleasure and surprise and renewed pleasure in sounds of different pitch, tone, timbre? His/her efforts to make sounds himself/herself? He tastes his hands, his blanket, his spoon, his rattle over and over and over. He mouths and rubs and licks and bites and pulls the nipple of his bottle (or his mother). He thrusts his legs up and down, swoops his arms around, rolls and squirms and crawls. With delight, he tosses his plastic cup off his high chair tray, squeals for its return, and tosses it again. He plays peekaboo with pleasure, with persistence, with inventiveness. He babbles gleefully, varying the sounds, the pitch, the intonation. He is intensely, eagerly, almost compulsively amassing data about how the world works, and his tools are all his senses and his body. He is an explorer in an unknown, exciting world.

What does all this have to do with play? Simply, the ways and objects of infant life are the ways and objects of infant play — although true play, according to Piaget, may not actually begin until exploration has yielded some sense of familiarity. For example, the classic and pleasurable game of peekaboo does not appear until the second half of the first year of life. By this time, the baby has already begun to learn, through experience, that

people come and go, that objects may disappear but can reappear. These notions are the essence of peekaboo. Cognitively, it is a game that examines, in a pleasurable context, complex ideas of constancy, reliability, predictability, and the relation between actuality and appearance. It is most enjoyable at that age when the baby only half knows that the hider will come out from behind the blanket. The excitement is in the risk; and so it is played over and over and over, partly for the pleasure of the recurring return, partly to participate in the quest for certainty, and partly to make it happen. This last named reason suggests the non-playful aspect of peekaboo, or indeed, of any play. The child plays to understand the world and to shape it — to make things happen. In this sense, play is both pleasurable variation of known actions and exploratory manipulation designed to reveal new understandings.

### **Toddlerhood [18 months to 3 years]**

The play of this stage combines tireless, ceaseless, joyful movement with intense attempts to order the world. Reflecting their newfound mobility, toddlers play with space in an endless variety of ways: they scoot back and forth, they climb to the top and slide to the bottom, they crawl into small places, they roll and jump and swing. Reflecting their burgeoning language, toddlers play with words: jingles and jokes, silly sounds, giggly repetitions of sentence fragments, chants. Reflecting the expanded potpourri of information they have amassed and their growing need to classify it, toddlers play with objects and materials in a fascinated search for patterns: they pile dishes, they line up spoons in rows, they transport pots and pans from one room to another and back again, they stack cups, they roll oranges along with balls, they make collections of keys and cookies and pocketbooks. (Indeed, ability to classify is one of Piaget's important indicators of thought.) Reflecting their intense attachments to their mothers and the other important caring people in their lives, toddlers play with relationships: they imitate grown-up actions and begin to play family make-believe, feeding the teddy bear with a hairbrush, cooking soapsuds soup, "driving" the car with a full repertoire of engine noises.

An important thrust of toddler life and play is testing one's information and skills and feelings against the inevitable limits of the world and of human society. This thrust is shaped by and reflects the toddler's need — and newfound ability — to pattern experience by representing it. Representation, whether imitation, language, art, or play, is the translation of an experience, an idea, a feeling into symbols. For Piaget, it is the beginning of true thought.

Imitation uses gestural symbols; language uses words, inflection, intonation; art employs line and mass; and dramatic play is a combination of gesture and language welded through imagination. All are forms of thought, and toddlers use all forms. The scribble, the onrush of words, the imitating of a parent's actions in make-believe are attempts to make sense of experience — to picture it, to explain it, to demonstrate it. In Piagetian terms, they are efforts to assimilate the world. At the same time, they are pleasurable in themselves because they express the human need to do, to

try, to master — play for the sake of play. So again, as in infancy, thought and play are intertwined, the first shaping the second, the second reflecting and deepening the first.

### **Preschool (3 to 6)**

The years from three to six are marked by rich forms of play, part elaborations of earlier experiences and part new constructions. Children enjoy using — and mastering — a wide variety of materials. They use raw and shapeable stuff like sand and clay and paint and blocks, which take on form and meaning only from the children's projections, inventions, and constructions; they also play with pre-formed games and puzzles that have a set structure and require bending one's own personal wishes to the demands of the material. In a different way, children engage in highly complex sociodramatic play, vivid and detailed expansions of the imitations of the previous stage.

Both play with materials and make-believe play express and are shaped by the characteristic concerns of these years — growing involvement with other children and the sorting out of fantasy from reality. These themes are related to each other in significant ways. Social experience exposes a child to others' points of view, wishes, and ideas, thereby providing a contrast to his own unique perceptions and feelings, and demanding accommodation and adjustment, a basic Piagetian position. Similarly, the increasing ability to separate the real from the distorted enriches a child's capacity for genuine friendship, based on common interests and mutual support, rather than on egocentrism. Play helps strengthen the resolution of these important concerns.

Use of materials becomes more systematic and varied, not purely exploratory. Although the nature of a material may still influence what a child does with it (as when a paint drip leads to a design), his tendency is increasingly to organize and pattern what may have begun randomly. He tries to give concrete form to his hitherto unexpressed, largely diffuse impulses and thoughts. In doing this he learns to separate himself from the outer world, his dreams from what really exists.

Make-believe does largely the same thing, engaging a child in intensely real concerns, in a context of the unreal, and helping him to distinguish between them. Have you ever heard two three-year-olds discussing whether there might be two mothers in one family, and because they both wish to be the mother, deciding that it is possible? When the game ends, the children know perfectly well that they were "only playing." They have had both the fantasy and the reality of their wishes to be mothers through separating play from real life. Two years later, or less, their more mature grasp of what is real and what is not will allow only one mother to a family; but they may add a grandmother, a baby-sitter, and a visiting teacher to meet the need for a large enough cast of mothers. Even fantasy play reflects knowledge of reality, and the intense desire to have the game continue happily leads to creative problem-solving.

In this sense, play in the preschool years is a bridge between felt inner experience and the world out there, between private understanding and socially validated objective knowledge, between unexpressed intuition and



differentiated reason. It provides a transitional mode of expression in the development of thought, part sensory-motor (in the sense that body actions and sensory experience are significant) and part representational (in the sense that symbols are utilized for ideas).

### **Middle Years (7 to 12)**

The play of sentimental childhood memory is the play of the middle years. This is the halcyon time when play is characteristically interplay — a passionate exchange between peers of loyalty, griefs, challenges, deep affection, and secrets. Adults, particularly parents, are severely excluded because a new social community is being created. This is the age of the club and the team, groups based partly on proximity and partly on mutual participation in the skills and games of the culture. Skating on one foot, jacks, marbles, Double Dutch, pickup-sticks, hopscotch, baseball, Pig Latin are the marks of membership. And no longer will personal adaptations of games do — using checkers as building blocks, for example, or changing the regulations mid-game. The emphasis is precision in play, on getting things right, and obeying the rules.

Even in the fantasy play of the middle years one can detect the preoccupation with realism. The worlds of paper dolls and of miniature soldiers, for example, are carefully constructed webs of experience: roles are assigned and events are ordered with particular attention to their consonance with real life, at least as perceived and understood by the creators.

I knew a group of eight-year-old girls who spent almost their entire school year, during the outdoor period, on the roof playground of their urban school, inventing a world of lions. The play was intense, often vigorous, full of turns of plot and details of characterization. It clearly reflected, through the symbolic details of animal life, the players' needs and internal tasks: push for independence from adults (there was no father lion, only a passive mother), struggle with sex identification (boys were excluded but the most prestigious role was the eldest son of the pride), respect for ability (that prestigious role was assigned to the most assertive and most verbal girl). These are important developmental themes at this age.

But equally interesting and notable were the children's unremitting and creative efforts to keep the play "real," true to lion nature, to jungle life, to the truths of family interaction. Continuous discussions went on about the likelihood of events. A child who persisted, out of his own need, in an action considered unrealistic by the others was ostracized, although not for long, because she usually accommodated to the group's perception of reality.

The point here is twofold. First, the creation of a community, perhaps the central task of the middle years, is both a social and an intellectual process. On the one hand, it involves yielding autonomy to a larger group, surely an emotion-laden issue, and, on the other, it means understanding the logic and rules of social interaction, a matter of thinking. Second, as in previous stages, play reflects development — in this case the trend toward logic, toward realism, toward community. Nor is it yet so simple, because the play of the middle years is a paradox, as is the middle-years child himself. He is intensely peer-oriented, yet he strives for the standards of the adult world.

He is steeped in the present — the excitements and challenges of daily life — yet he reflects the long past of human history through his chants, his counting out rhymes, and his street games.

Single-minded in his intense acquisition of skills, he is broad and changing in his interests. Often intolerant and exclusive in his friendships, he nevertheless admits to his circle anyone who can master the tricky, the difficult, the abstruse. The playful and the serious interact, games preparing for life and life tasks informing play with a sense of importance and urgency.

### **PLAY AND MENTAL DEVELOPMENT**

To play, then, is to think — as well as to feel, to try out, to invent, to enjoy. As the nature of thought changes, so does the nature of play. The infant thinks through exploratory involvement with things and people. His play is a continuous sensory connection with everything in his path and his purview. Toddlers and preschoolers think through symbolization of experience: play is make-believe, drawing, word combinations. Older children begin to use logic: their play is more ordered, rational, communally shared.

Does play contribute to mental development? Does it support, enrich, advance thinking besides reflecting it? What formal research we have, while suggestive, is inconclusive; and it is to be hoped that more studies will be undertaken. (Note work done by Sigel, Pulaski, Smilansky, Singer, Sutton-Smith, Gilmore). To any careful observer of children's play the answer would seem clear: play and thinking are handmaidens, inseparable, each feeding the other, together part of that changing and complex tapestry that is human development.

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"Solidly based experimental and experiential evidence indicates that play can serve as a powerful support and energizer to some basic goals of education:

"Play is a lawful phenomenon, showing clear developmental trends and serving profound and intermixed human needs.

"The 'as if' attitude of play is related to abstraction, symbolization, and creative cognitive processes.

"Play integrates cognitive, emotional, and social elements in the child's thinking and behavior. It helps him or her understand and integrate disparate experiences and aspects of his own behavior.

"Insofar as the child is the initiator and doer in his play, it gives him a feeling of having some control over his destiny; it fosters initiative and diversified problem-solving.

"Play permits the child to experiment with possible options and solutions and to get others' reactions to these, without committing himself to the consequences of having tried out these alternatives in real life — e.g., spanking the doll that represents a pesky little sister.

"The role of spontaneous play in the curriculum in early childhood education must be determined by the individual teacher who can facilitate it, integrate it with other cognitive and curricular materials, or inhibit it." — Sara H. Arnaud. "Some Functions of Play in the Educative Process." *Childhood Education*, Nov./Dec. 1974.

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# **Play and Child Development**

**By Lawrence K. Frank\***

Children's play embraces a wide repertory of activities and the use of toys, play materials, and games. Above all it embraces the use of imagination, often highly creative, in and through which a child, alone or with others, explores the world around him. What some call idle or aimless play is the way a child seeks to discover the basic dimensions and operations of the actual world, learning its space-time properties and physical relationships he must master for living in the world. Intent on playing, a child functions as a healthy young organism who, by being alert and continually active, seeks what is essential to his growth and muscular strength and skills.

## **Learns What No One Can Teach**

When play seems to the casual observer to be most purposeless, a child is orienting himself, endlessly rehearsing what will later become directive in all his activities. He learns what no one can teach him. If the child had only to master the physical world, his tasks would be relatively easy, since like

\* Lawrence K. Frank, outstanding social psychologist, author and lecturer on Growth and Human Development, is no longer living. Reprinted here is the piece he contributed to the original edition of this publication; his words are as valid today as they were twelve years ago.

other organisms he has inherited capacities for such neuromuscular learning and sensory discrimination. But the infant organism must be humanized — learning to live in our symbolic cultural world; learning to recognize and respond to the meanings of things, events, and people; learning the complicated and subtle problem of human relations; and learning goal seeking, purposive striving. Hence through play the child continually rehearses, practices, and endlessly explores and manipulates whatever he can manage to transform imaginatively into equivalents of the adult world. He experiments with and tries to establish the meaning and use of a variety of symbols, especially language, as he tries to cope with this often perplexing grown-up world. In his imaginative use of play materials and games as surrogates or models, or miniature replicas of this adult world, he creates a microcosm more amenable to his limited strength and skills and understanding. Through verbal play he tries the varied combinations of words and phrases, discovering and mastering the meaning of these verbal symbols and practicing communicating, both verbal and non-verbal.

### **Learns What Is Meaningful to Each**

Recognizing these varied and irreplaceable functions of play, we realize how essential is the provision of play materials for the development of the child as an organism-personality and for his basic education upon which his subsequent education is dependent. If we observe his play carefully, we will see that each child is a unique individual with his unduplicated heredity, his individual body build, and physical and mental capacities, especially his individualized way of perceiving and relating to the world. In his play the child reveals his "cognitive style" — visual, auditory or tactile-motor — his way of learning and entering into a cognitive, knowing relation with the world of events and people. We will also note that each child spontaneously learns what is truly relevant and meaningful for him, always with feelings that will probably persist in all his subsequent learning.

Children need access to a variety of toys, games, and play materials with opportunities for individual or group play. They need freedom to experiment with varied materials and to "play out" their perplexities and emotional problems which they cannot or will not verbalize, which they will not find resolved by adult explanations. For these varied purposes play materials should include a wide range, especially of "constructional" materials — blocks, clay, sand, and water — through which they can translate their fantasies and their creative imagination and express their feelings and aspirations. They need toys that can be literally incorporated into their individual "private worlds," finding in them sources of reassurance in an adult world that so often appears strange and even terrifying.

What we provide for children's play — space, time, equipment, and play materials — expresses our recognition or understanding of the crucial significance of spontaneous childhood experiences, of the child's need for play, without adult coercion and unnecessary restrictions, so that at each stage in his development he can learn in his way what is necessary and desirable for him. If not pressured or frustrated, he will wean himself from

toys and play when he is ready to go on to new experiences. In his play a child reveals his maturation or any arrest or block in his development.

### **Self-Learning and Learning by Discovery**

Play offers the child the major opportunities for self-learning for "learning by discovery" and for cultivating his creative abilities — all the recently recognized patterns that are being urged upon the schools today. Accordingly, we can urge the generous provision of these essential play materials which this bulletin indicates are available and appropriate.

Most important for children's play, however, are patient, understanding, and benevolent adults, parents, and teachers, who are aware of a child's need for play, who recognize how truly essential play is for the child in his unceasing search for orientation to the world and for self-discovery. The most elaborate play equipment may be of limited value unless adults recognize the individuality of the child, respect his dignity and integrity which sometimes are disclosed but often are concealed beneath his childish play and seeming irrationality. But "children have their reasons," as Ruth Washburn pointed out so clearly years ago.

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"Children can be helped to learn many things through play and games, but if they do not have fun in doing so, the game is over." — Eli Bower. "Play's the Thing." *Today's Education*, *NEA Journal*.

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"Contemporary research reinforces a finding of the early 1930's — that motor development plays an important part in an individual's total development. Only if a child can move freely, is he able to learn about himself and his world.

"The new stress is on equipment that encourages vigorous movement, adventure, and creativity — that stimulates natural environmental challenges." — Lorena Porter, "The MOVEMENT Movement." *Today's Education*, *NEA Journal*, May 1972.

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"Creative planning and hard work are required to build spaces that children can use for exploration and play, but effective spaces for outdoor play have been arranged on rooftops, blocked-off urban streets, church driveways, and parking areas, and vest-pocket inner-city parks."

"Finally, some space in the yard must be set aside for free, unrestricted physical activity. Children need the freedom and time to let their bodies explore empty space with carefree abandon." — Thomas Yawkey and Carol Seefeldt. *Day Care: Planning and Implementing*. EKNE.

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# Environmental Opportunities for Creative-Exploratory Play



By Neith E. Headley and Elizabeth Ann Liddle

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*Elizabeth Ann Liddle is Director of Graduate Programs at Wheelock College in Boston.*

The everyday environment holds for all children unending possibilities for thinking, feeling, creating, and learning. With imagination and adult interest and support every child could find myriad materials to examine and use in his play. Each child in his own way, at his own stage of development, and in his own environment can be helped to seek the satisfaction of creative-exploratory play.

TV watching has taken away many hours from the child's opportunity to engage in creative-exploratory play, but some of the better programs actually encourage children to engage in activities involving wholesome creativity. And in some cases an out-of-order TV or a parental decree limiting television watching has created a new awareness of the opportunities for exciting discovery and fun to be found in one's own environment.

Different environments will provide differing opportunities for creative activities. Although adults may be needed to set the stage, open possible avenues of expression, and even save or point out materials to promote creative constructive play, the child in any stage of development can be helped to find delight in discovering — and discovering is an important factor here — ways in which he can be creative.

Let us not confuse experiences predesigned by others — experiences complete with behavioral objectives — with creative experiences. Also let us not lead children or, for that matter, adults into believing that a child or an adult has been creative when he produces a product from following prescribed production procedures. Certainly all of us come by our ideas through having been stimulated by the discoveries and the thinking of others, but to repeat an outlined experience on a bit of patterned procedure cannot be called a creative art.

### **Handcrafting Play Materials**

We are grateful to the many manufacturers who have supplied children with good, challenging play materials. However, we must constantly be on the alert to evaluate even the best commercial materials to see whether the good challenges they offer might not have been experienced through materials to be found in the environment. Many ideas for handcrafting play materials from "throw-aways" can be found in *Bits and Pieces*, available from the Association for Childhood Education International. (See listing on inside back cover.)

A quick look at a few play items that can either be purchased or contrived from materials in one's own environment will serve to alert one both to dollars and cents and learning values:

The currently popular terrarium can be purchased today with all its trappings, in many types of stores. It can cost from three to fifty dollars plus. A functional and attractive terrarium can be made from an old transparent paste jar, a discarded apothecary jar, a candy jar or wine bottle. If none of these is available one could make a satisfactory terrarium by cutting windows in the four sides of an open box — an oil-sealed corrugated box would be excellent for the purpose. The entire box could then be covered with a self-sealing transparent material like Saran wrap. And *voilà!* — a container. A bit of research at the neighborhood library or in the school or family encyclopedia would give leads for practical creative planting.

Available commercially is a play unit into which a child can retire for privacy. It is wired so that when in the enclosure one can listen to electrically reproduced stories and music. The unit sells, I believe, for a thousand dollars plus. Privacy and the same type of entertainment can be attained by throwing a sheet or blanket over a card table or crawling into a packing box in which a refrigerator or some other large household appliance arrived. A record player, transistor radio, a tape recorder, or even a favorite book could supply entertainment. Quite possibly, hidden away from the immediate present the best entertainment of all would be a flight into the world of make-believe.

A beautifully boxed fishing game complete with four twelve-inch polished poles, lengths of string, magnets, and wooden fish can be purchased for

from two to five dollars. Twigs or small branches from bush or tree, a wooden spoon from the kitchen drawer or some tucked away chopsticks could be used for fishing poles. To lengths of string one could attach magnets borrowed from the refrigerator or magnetic bulletin board, and paper clips, nails, or wire loops, or other magnets could be attached to fish forms cut from cardboard, wood, or styrofoam. A fish form sculptured in wire would eliminate the need for attaching a magnet or pieces of metal to the fish form!

If a child created such items as his own terrarium, his own hideaway, and his own fish game, then besides having the product he would have had the added delight of having "discovered" ways in which to contrive the product. And his experience in problem solving would in turn have afforded exciting and challenging learning opportunities. Sometimes it seems as though many of our commercial materials are almost a defiance to children. They seem to say, "What more could you want? We've provided you with everything. Play now, damn you, play!"

### **Growing Children Use the Same Materials in Different Ways**

At different ages the child uses some of the same basic play materials in his or her play. From manipulative and diffuse play he moves to more defined play. He designs more realistic goals, and he develops more co-operative and definite relationships with his peers.

A father observing his own son's use of dirt and sand over a period of six years (5-11) noted that, as the child developed, his play moved from the use of the material for reproducing experience on to an expression of a more abstract understanding of the concepts that he was developing. At first boards and sticks were set up or pushed through the sand in a haphazard way with no beginning and no end in mind; then roads, buildings, and structures were identified and the area itself became organized. At age eleven the structures and their relationships were more accurate and the concepts that were revealed suggested insight into the world the child knew. Growth was taking place in a sequential manner. The child was working out his thinking through the use of his play materials.

A look at children at different stages of development may suggest some of the many ways in which children use nature, household items, "waste materials," and even people in their play.

### **The Infant**

In thinking about the child from birth to twelve months, one's first reaction is to rule out any possibility of his being a creative individual. Absorbed as he or she is with the business of eating, sleeping, and eliminating, having had so little experience in being influenced by the thinking of others, how could he or she be creative?

He is creative in many ways. Without being shown he discovers that his thumb is a satisfying pacifier and that his fingers and toes afford hours of entertainment. He tries varying vocal patterns and is delighted with his efforts when he finds that he can entertain and even control situations by his laughing or crying. Without instruction he comes upon a variety of movement patterns and even creates his own pattern of locomotion. No two babies have ever developed the skill of crawling or walking in precisely the



same patterned fashion. Adults need only provide an infant with food, physical care, and a challenging environment, and he will make something of it all. He needs uninhibiting clothing, soft and cuddly toys, a mobile for his crib, soundmakers such as squeaky toys and rattles, simple push-pull toys, and safe confines in which he can engage in his exploratory play.

### **The Toddler**

The one- and two-year-old as he begins to roam about the house quickly selects materials for play. He drags pots and pans from cupboards, examines and uses eggbeaters and wooden spoons, and pushes and climbs on chairs. The toddler is a thorough experimenter and needs little to amuse him, but he needs adult help to provide safety. A sand or dirt pile (it doesn't need sides) with old but safe wooden spoons, cans, sifters, cups, and plastic bottles intrigues him for long periods of time as he pours, sifts, and manipulates the material. A big wastepaper basket or container that can be dumped and refilled with toys or bits of this and that may occupy him. Stones, pieces of wood, or toys that can be pulled by a string give him real pleasure. He is beginning to like to look at old magazines with their colorful advertisements. Bathtime is playtime to find out about soap, where water comes from and goes, and what splashing does. Wooden spoons, sponges, nesting cardboard boxes, colorful ribbons, and various textured materials satisfy his need to feel and investigate and so to learn.

He floats leaves on a nearby puddle or just wades through it, feels the texture of earthworms, and smells flowers in the garden. As he feels,



touches, and smells he begins to use his natural environment. He moves rapidly from one activity to another, and the most inexpensive item can enthrall him. Stones, piles of leaves, and sand can be moved from place to place. He builds and then gets pleasure from knocking down his structures. He tastes snow and is aware of the feel of grass on his bare feet. The toddler's world is so full of new experiences that it is easy to find appropriate materials for him to examine.

### **The Pre-Primary Child**

The child from three through five years of age loves and needs messy materials. He continues to like sand, mud, and water. In the backyard, the kitchen sink, or the bathtub he tries out the weights, action, and plasticity of these media. Household items such as the toddler uses are needed as he manipulates sand, water, and mud. As he moves along in this period of childhood his sandbox play becomes more organized and thus may contain roads to New York or Texas with stick trees, stone roads, wooden cars and trucks, and even helicopters.

The child of this age is also moving toward others in his relationships, and he likes to join adults in such activities as cooking. These may be work for adults but they remain play for the child. Instant puddings, cakes, and muffins are ideal to use in beginning cooking experiences. Making apple-sauce, Jello, or cranberry sauce are home play activities. He also likes the water play of washing dishes. He may be slow and not so efficient as an adult, but he is learning.

The young child as a creative being uses many types of materials in imaginative and sometimes messy ways. Play dough, for example, is a wonderfully creative medium. It can be made at home by combining flour, salt, water, and vegetable coloring. After the child has helped to measure and mix the ingredients as he did in cooking, he can spend hours shaping and reshaping his dough.

Another messy but worthwhile activity is fingerpainting. Fingerpaints can be made from liquid or cooked starch with food coloring added. Be sure to cover the floor or table with newspapers so that the mess will not bother you, or set the material up on an outdoor picnic table. Shelving paper or any glazed paper is satisfactory for fingerpainting, or a child may do his fingerpainting on an enamel or formica topped table. His favorite product can be reproduced by pressing newsprint or some other absorbent paper over the original fingerpainting. In these days of paper shortage this is a good technique to keep in mind.

An old carton or trunk of dress-up clothes is fascinating to these young children who are in the process of learning about growing up. Don't forget the boys! See that they have ties, coats, and hats and even barbecue aprons. Beads, bracelets, and high heels please the girls. These clothes do not need to be elaborate or new. A scrap of cloth or old curtains may be just as good as a complete outfit. The cloth may become a bride's veil, an astronaut's suit, or a dancer's sash. Discarded scarves have many possibilities in the minds of imaginative four- and five-year-olds.

Collections of scraps of wood left over from friends who do woodworking or from the lumberyard make wonderful building material. Soft wood is best

for sawing and nailing but hard wood pieces can be used for gluing creative sculptured forms.

Collages can be made from a variety of easy-to-obtain materials. Small boxes, straws, sticks, all types of paper, foil, cloth, foam rubber pieces, paste, glue, scotch tape, and staplers are some suitable materials for collages. Small seeds, stones, nuts, or shells may also be used. Young children like just to cut and paste and arrange materials together on pieces of newspaper, scraps of bags, or wrapping paper. A few children in the pre-school years construct realistic pictures or make animals or vehicles from old milk cartons or boxes.

Some four- and five-year-olds want to make books from scraps of paper clipped together and filled with magazine pictures. Some draw their own pictures or dictate their stories to adults. Wallpaper, newspaper, and magazine pictures, original drawings, and cut-outs are a part of early book-making.

Out-of-doors the three- through five-year-olds find fun in using a pulley to lift objects up into tree limbs, swinging on an old tire hung from a tree, or in trying to skip rope with a piece of clothesline. A log to balance on or bushes to hide in are challenges. The young child watches ants come up through cracks in the sidewalk, follows squirrels to their nests, becomes fascinated with the development of polliwogs. In some parts of the country he can play with snow, making it into snowballs, snowmen or snow houses. Out in the country children have hills to climb or woods and creeks to explore. In the heart of big cities the young child sometimes finds animals and plants. He also uses the more structured playgrounds and parks for both his physical and exploratory play.

He is also curious about how things work in his environment. His interest in physical science may be stimulated by a carton of junk. He may have clocks to take apart, wires of many lengths and sizes, nails, screws, wheels, and other "fix-it" and "try-it" materials about the home that can invite him to experiment. Four- and five-year-olds enjoy a board set up with old locks and keys or a board with switches that can turn lights and bells on and off. These can be inexpensively constructed by adults. The young child mainly wants to manipulate his environment and try out various aspects of living.

### **Middle Childhood**

As the child grows into middle childhood he becomes more involved in play with other children, and his play becomes more structured and directed toward specific ends. Even though the older child uses many of the same materials, the way he uses them becomes quite different. For example, he still likes messy materials but those he selects take more skill to use. He continues with fingerpainting but may add papier-mache for making maps, puppets, and reproductions of plant and animal life. By now he can control this medium and has the span of attention to carry through a project from day to day. His product may have some utilitarian use for play-making or school assignments. Plaster of Paris is another material that takes skill to use but is still messy to handle. The sand, mud, and water play of early childhood is carried over but in new forms and for new purposes.

He will also use collage materials. An eight-year-old might make a collection of "Seuss" animals from boxes, a ten-year-old a diorama of prehistoric animals, and an imaginative twelve-year-old might make puppets of characters from his favorite book. Odds and ends from about the house encourage children to use imagination and talent in developing products commensurate with their ages and interests.

As children extend their play into middle childhood, it becomes more practically oriented. A ten-year-old who had a large tank of guppies decided the tank was getting too full, so he constructed a sign to put in the neighborhood store reading, "Guppies for Sale." The sign included the price, how to care for the guppies, and where to phone for further information. This ten-year-old had gone into business. Earlier he would have been content to sell shoes or imaginary articles to guests or lemonade at a stand, but now he was really ready to undertake a business adventure which was certainly more mature play. An eight-year-old girl also showed this seriousness of play when with the aid of her mother she learned how to use the sewing machine and began to make stuffed animals for her friends for Christmas. Although the areas that children select will be different, they show a growing concern for others and for carrying out their play in methodical ways.

Children in middle childhood also become interested in hobbies and collections. An eleven-year-old boy collects maps but for a real purpose. He studies these maps because he is a bicycle enthusiast and plans bicycle trips of increasing distance. He studies a map, plans his route carefully, and then gets the "OK" of his parents to take the trip with his young friend. In his planning he does real thinking and gets enjoyment and satisfaction. A twelve-year-old boy set up a reporting system on the World Series in baseball in which the scoring of each batter, total runs, and score of each team were recorded on a board over the TV set in the living room.

The polliwogs the younger child watched in the fishbowl may now be collected from ponds by the older child. Collections of rocks, butterflies, homemade wooden machines, spring flowers, motors, homemade paper dolls, scrapbooks of heroes, keys, or just plain junk are gathered to be shared with friends, traded, or just displayed.

Along with the collection of things comes the collection of talents. Who, for example, knows the most skip-rope chants or games? Who knows the greatest number of ways of playing sidewalk games with balls and chalk? Who can run the fastest up the hill? Or who can stay under water the longest?

Trees become jungle gyms and hiding places for children, and bushes are used for setting up dollhouses and schools. A tree house may be part of the gang's hideout. A rope ladder may be used for stunts or for climbing to high places. Streambeds, snow forts, and cornfields are part of the adventure of investigating the world of this growing child. Together and alone he continues to strive to know and enjoy living.

Many children in this stage of development are attracted to the mechanics of moving things. The junk box is still a necessary adjunct of play. Now motors that work or can be made to work are vital. Racing cars may be built. Telephones may be strung up to the next-door neighbors' house. Steam engines and electro-magnets may be constructed from castoffs. If something

works, it is more satisfying to the older child. To make an old alarm clock work is a highly satisfying creative achievement.

The child from six through twelve is using the materials of his environment, both people and things, to obtain a better understanding of himself and his world. Like the young child he is experimenting and exploring, feeling and learning. He is maturing fast, and his play as it gains more structure and organization begins to assume more of adult patterns of work into which he gladly enters.

Most environments have many available materials to play with and learn from. Play is learning for the child. Play is work for the child. Play is enjoyment in living as a child. Play is the right of every child — and every adult, and to be creative in one's play is to add new dimensions to one's living and learning.

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"Play is the way a child learns what no one can teach him . . . We need to see what enormous and necessary contributions play and creative activities can make toward the learning and thinking ability of children." — Ruth E. Hartley. "Play, the Essential Ingredient." *Childhood Education*, Nov. 1971.

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"Play is an expression of the inner drama of the mind. It is the way the small child discovers how to use the world for his own purposes, to manipulate it." — Richard Courtney. "Education Is Play." *Childhood Education*, Feb. 1973.

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"The young child's play is the equivalent of the adult's planning activity." — Erik Erikson. "Cognitive Approaches." Herron and Sutton-Smith, *Child's Play*. New York: John Wiley & Sons, Inc., 1971.

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"Play is the child's natural medium of self-expression." — Virginia M. Axline. *Play Therapy*.

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"Play which appears so spontaneous, carefree, and frivolous is actually one of the most important aspects of social development." — "Play" in *Natural History Magazine Special Supplement*, Dec. 1971.

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# What Can Destroy the Value of Play?

By Gladys Gardner Jenkins

*Gladys Gardner Jenkins is a Lecturer in Education and Home Economics at the University of Iowa, Iowa City.*

Not long ago I went into a famous store to buy some games. The well trained saleslady brought out many attractively boxed "educational" games. With thoroughness she explained the effect they would have on the ultimate school success of the pre-primary youngsters for whom I was shopping. This one would improve eye-hand coordination. That one would be helpful in learning to read. Counting and even a knowledge of some geometry would be developed by this one. For the school-age child I was shown games to teach number combinations, spelling, reading, or geography. But not once did she mention fun. Yet the dictionary says that play is fun, sport, something to amuse oneself. Children do learn many things through their play and through games as a specific technique of teaching. But when free play becomes serious and solemn, with the goal of aiding specific school learning, it is in danger of no longer being play. Such play may lose its spontaneity and become the conscious tool of grownups who would manipulate the play of children toward an academic goal. The value of learning may still be there, but the value of play has been destroyed.



### **Purpose and Timing**

With equal seriousness of purpose the playtime of boys and girls is encroached upon all too frequently with lessons that hopefully will develop recreational skills — skating, tennis, music, dancing. These can become satisfying areas of recreation if those who teach can keep in mind that that which is taught for recreation should be done with joy, with opportunities for creativity and self-expression, with laughter and with eagerness. We need to give thought to how to provide training in these skills that can lead to the satisfaction of play all through life. Too often such lessons kill the desire to use the skill. When lessons make of learning an unhappy chore, the recreational part of the experience is often permanently destroyed for many a boy or girl.

Sometimes we destroy the value of play through our very eagerness to provide children with creative media and opportunities to express themselves. The timing may be wrong. The sewing machine, the erector set, the model airplanes or cars, the sports equipment, or even the paints or scissors or paper may have been given too soon. Materials can be discouraging rather than stimulating if the child is not ready to use them effectively. All might have been eagerly used at the appropriate time.

### **Self-Conscious Play Has No Value**

Play that is made self-conscious ceases to have the real value of play. Grownups sometimes blunder by entering too actively or even too enthusiastically into children's spontaneous play by making suggestions, laughing at the wrong moments at something that seems "cute" but is serious to the child, or giving criticism that downgrades what the children have worked out by themselves. The adult who steps in to "do over" the puppets, rewrite or rephrase the children's efforts at dramatization, touch up the painting, take out the awkward stitches or change the rules of the game may discourage rather than encourage the creative play of children of all ages. The imagination of a child is a sensitive thing. It can easily be made to shrink back by the unthinking adult.

### **Too Many Toys Frustrating**

Children are easily overwhelmed by too many toys. Some playrooms look like a toy store thrown into confusion. The child who must pull everything off the shelves or dig through a play box to find what he wants is often so frustrated that he either ceases to carry out his idea or becomes destructive as he sweeps everything aside. Those things that might be played with sometimes — that are not the center of a child's present play interests — are better put away on reserve. Care must be taken to understand what is of value to the child. Many grownups want to throw out or label as "junk" those odds and ends which have significance to the young owner. His collections, his treasured old and battered toys, even his odd bits of things often lead to more creative play than those toys that adults feel are surely more appropriate.

The only-take-one-thing-out-at-a-time rule can also stifle the value of play. An imaginative child may put many things to uses that the toy manufacturer never dreamed of. A child should be free to use his possessions constructively in his own way, even if it is not labeled "the right way."

### **Do Toys Need To Match Girl or Boy Role?**

Perhaps one of the most frequent and unrecognized ways of destroying creative play is the stereotype of the kind of play that is suitable for a boy or a girl. Many grownups show concern and call a small boy a "sissy" if he plays with dolls or thoroughly enjoys the "house" play that is considered suitable for a little girl. Yet boys are and should be as much a part of the family as girls. They will grow up to be fathers who hopefully will have tender feelings for their children and some know-how in caring for them. Girls are too often called "tomboys" if they like to climb trees, swing a baseball bat, or whittle a stick; yet these activities are fun for girls too.

Some men knit socks and cook meals, and some women like to fly airplanes or peer through microscopes. Boys and girls should be encouraged to follow their own play interests without being manipulated by adults to play like a boy or a girl. Toys and games should be chosen not on a presumably sex-interest basis, but on the individual interests of each child. Yet we still see many toys labeled for boy or girl, and even placed on separate counters in the stores. Children who have a clear biological masculine or feminine identification with father, mother, or other adults whom they admire and copy can be left safely to choose their own play interests.

### **TV Exploitation**

Children are also exploited by grownups in another and more subtle way. The TV entertainer is a frequent visitor in most homes. He suggests, cajoles, and even bribes youngsters with his run-and-ask-Mother-to-buy-you pressures. His influence in making children into conformists is tremendous. The repetitive insistence that "this is the doll you must have," "all the children want this," "this is the only kind of bike to ride" gradually eats into the minds of far too many youngsters — creating feelings of dissatisfaction with their own toys and of deprivation because they cannot have "what every boy and girl wants." The pleasure and satisfaction of making doll clothes has been taken away from many a child because of the pressure to own and display a particular brand of doll with a fashionable wardrobe. Too often the homemade toy, the dollhouse made of crates that used to enchant, the wagon made from scraps of wood and old wheels are now looked down upon by boys and girls, while highly advertised commercial products are craved and demanded. Many children are losing the ability to create out of odds and ends plus a healthy imagination. They are missing the sense of achievement and pride that comes from knowing "I made it myself." The values and play interests of children are in danger of becoming directed at an age when all boys and girls should be discovering what they like to do in their free time, rather than following the Pied Piper of the TV screen who lures them on and tells them what they should want to do.

### **Competition Can Destroy Child's Eagerness**

When play becomes overcompetitive, so that winning becomes more important than playing, it can be destructive to many youngsters. The high emotion and tension so often engendered when adults unwisely create an atmosphere of competition is again exploitation rather than play. Competition that results in the rejection of a child who cannot play well enough or run fast enough can permanently destroy that youngster's interest and



eagerness in taking part in group play. If too many such experiences happen, a child may pull away from other children instead of eagerly playing with them.

When grownups enter into the play of children to exploit it for purposes other than play, the value of play becomes lost or distorted. For many hours during the day children can be "taught." It is our job to provide time, space, materials, opportunity, and sometimes guidance; but let us return play and playtime to the children.

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"Childhood play is a bulwark of mental health. Within its self-imposed structure, children set up and resolve challenges and conflicts that are physical, intellectual, and social in nature." — Dorothy Cohen. *The Learning Child*. New York: Pantheon Books, Random House, 1972, p. 337.

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"If the young child has had ample opportunities for play, he is likely to be better prepared for academic study and disciplined learning." — Lawrence Frank. "Play Is Valid." *Childhood Education*, 1968.

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"The child who spends all his days without playing, deprived of this atmosphere of freedom and happiness which is generated by play, wilts and withers and may turn psychotic and suffer impaired development." — *International Journal of Early Childhood*, 1973, Vol. 5, #1.

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"We are making young children work very hard, and we are teaching older people how to play, and there is something very wrong about that." — Dorothy Cohen at ACEI Study Conference, April, 1974.

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# **Play for the Convalescent Child**

By Susan Farnum

*Susan Farnum is Director of the Child Life Program, Mount Sinai Hospital, Hartford, Connecticut.*

**"Play hastens the recovery of the sick child,  
and apathy is his worst enemy." — Hugh Jolly**

As Sally walked into the hospital playroom for the first time, she noticed it was like her own nursery schoolroom. From the pictures that were on the wall, she could tell that the children here did many of the same things she had done before — fingerpainting, brush painting, cutting and pasting, coloring on large sheets of plain paper, and making collages with beans, cloth, yarn, and paper. Some children were playing in a group with blocks, cars, and trucks; others were reading books in beanbag chairs; two were building with wood; and a small number were working on an aquarium mural on the wall. Many parents were in the room helping the teacher or playing along with their children.

Sally watched for a while, noticing some new things about this playroom. Some children at the mural were painting from wheelchairs; others lying on stretchers had been placed at the mural so they, too, could paint. The brown paper on the wall was at a height good for all. The nurse who had taken Sally's blood pressure stooped to pick up a paintbrush and added some fish and seaweed to the mural. In another part of the room a boy who was in traction flat on his back shared the plastic dishpan at his side with a boy who had come over to make playdough with him.

Sally has just been admitted to the hospital for surgery. Like many children, after tests and treatments are finished, she does not need to spend all her time in her own bed, in her own room, isolated from everyone. Immediately after surgery Sally will need to rest, but can gradually go to the playroom more often. This playroom was especially designed to provide a child like Sally with play experiences that give her choices, and a chance to be in command of her situation — play experiences that will help build self-esteem and self-concept as well as develop social skills.

All children play as part of their normal activity. Through play the child learns, thereby developing his emotional, mental, motor, and social skills. If play is essential in ordinary life, it is all the more important in hospital life. Play in the hospital adds a new dimension to medical care, both by providing a protective cushion for the child and by supplying means to understand his



feelings more fully. Play hastens the recovery of the sick child and apathy is his worst enemy (Jolly, 1969).

Illness changes the child's characteristic way of living. His activity has to give way to partial or complete physical passivity and greater dependence on those who take care of him. Anxiety enters as a strong force, too (Plank, 1965).

#### **Specifics for Play In Hospital**

In addition to appropriate play for well children, play for hospitalized children should:

- a) aid or assist a child to vent his own feelings, and provide a means for the child to communicate these feelings;
- b) help build the child's self-esteem by teaching him new skills, so he can go back to his friends and teach them "what he has learned in the hospital";
- c) give the child an opportunity to be in command. The playroom atmosphere should be planned so children can easily move from one activity to another. "In the playroom the child becomes the most important person and is in command of the situation (Hott, 1970)." Play should allow the child to make his own choices in this place where most decisions are made for him.
- d) provide a large variety of different types of play so the child has a definite choice to make. "Voluntary choice of activities and a wide range of materials become essential components of hospital play (Hott, 1970)."
- e) provide experiences that can be completed in a relatively short time and are not frustrating.

f) encourage children to play in groups. In this way, play will facilitate children in making new friends in the new hospital atmosphere so strange and unfamiliar to his known world.

### **Kinds of Activities**

To help children vent their feelings, messy play such as playdough, finger-painting, and water play create the sensory stimulation needed. Also throwing balls into a container, building towers and knocking them down, and hammering on pounding boards help particularly when feelings are pent up because of being left alone, being away from friends, being in a strange place, and experiencing probing and painful procedures. Also play should be set up so that children are easily able to socialize with each other.

Here are some of the activities a convalescent child might enjoy:

### **PAINTING**

#### **brush painting**

Small brushes should be used by older children while the short-handled, fat brushes should be used by young children or those who have not painted before.

#### **tempera paint**

Either powder paint and water or cake tempera. Powder paint can be pre-mixed, or it can be dipped into with a wet brush. Can be used with sponge or brush on chalkboard or other non-absorbent surfaces.

#### **water colors**

Used on paper or cloth. Painting with plain water.

#### **painting with plain water**

Can be used with sponge or brush on chalkboard or other nonabsorbent surfaces.

#### **fingerpainting**

A tablespoon of liquid starch and one-fourth teaspoon powder tempera can be used as fingerpaint on glossy paper (or shelf paper), or on a table or tray. To facilitate removing the fingerpaint, let the child do water play after fingerpainting.

#### **fingerpainting printing**

After making a painting, place a piece of regular paper over it and press up and down. Blot. Don't rub or it will smear. Pull paper off. Older children like to write their names backwards, so the print will appear correctly.

#### **printing**

Cut out designs from carrots or potatoes, or use the natural design from an onion or lemon.

#### **string painting**

Place paint on paper and pull paint with string or yarn.

#### **mirror painting**

Fold a piece of paper in half; open it; put one or more colors in the crease; fold again, and press. These designs can be as is, or cut out and mounted.

#### **blow painting**

Using watered-down paint, blow through a straw to make designs. Two or more colors, starting separately, make an interesting effect.

#### **syringe painting**

Mix three parts flour, one part salt, and add water until consistency of

cream. Add powder tempera. Make sure all lumps are out. Put in syringe and "squirt" on paper or styrofoam tray.

### **COLLAGES**

Make pictures using one or more materials. Some material choices might include:

string, yarn, cloth, paint, crayon, pencil, magic markers, cardboard tubes, rice, beans, elbow and shell macaroni, tissue, crepe, or construction paper, or cut-out magazine pictures.

### **WATER PLAY**

Blow bubbles with straws as a group in a basin, or individually in a paper cup over a basin.

Older children like to time with a stopwatch or a watch with a sweep-second hand how long it takes to fill the basin, then repeat it to see if they can beat their time.

Washing rubber animals, dolls dishes, etc.

### **PLAYDOUGH**

Mix three parts flour and one part salt. (Frequently young children enjoy just mixing these together, and not going on to make the finished product.)

Add a few tablespoons of water VERY gradually. Mix well.

To color:

For younger children add powder tempera to the water (before adding), or add powder tempera to the flour and salt mixture. For older children make a well in the already mixed playdough, pour in a little powder tempera and work through.

### **DRAMATIC PLAY**

Dress up, doll play, grocery store play, etc.

### **STORIES**

Books written by the children. Their own stories can be written down, put in a book, made into a newspaper, put on tape, made into a puppet show or television program.

### **BALLS**

#### **bowling**

With rubber or styrofoam pins

#### **throwing**

Throwing soft balls into a suction basketball net or a wastepaper basket.

### **CONSTRUCTION**

#### **sets**

Such as Legos, Contractor, Ring-a-majigs

#### **paper construction**

Construction paper folded, pasted, and scored to make trains, cars, 3-D animals, cities or towns.

#### **gluing**

Using cardboard tubes, tongue depressors, wood, wire, paper cups, medicine cups.

### **whipped soap**

Boat Ivory and water (equal proportions) for 15 to 20 minutes until very stiff. Using paper cups as an armature, build structure, and cover with whipped soap. It will be hard in 24 hours.

### **STRINGING**

Using varn, string, or shoelaces, string wooden beads or macaroni or rigatoni.

### **Play in Special Situations**

In special situations sick or hospitalized children might be faced with being isolated. Some children are confined to bed rest. This may be strict bed rest in which the child should not exert himself or herself, or perhaps he or she may have only some movements restricted, as in the case of a child in traction. Others need only to have their feet elevated, and although they are in bed, can easily move around in it. Persons working with a sick child should check with the physician as to the amount of activity the youngster can have.

It is important that the child who is restricted to bed have a room decorated with color. Put up on the walls or on bulletin boards pictures they have done, their crafts, or stories they have written. Ribbons or streamers on the bed also add color.

If a child is confined to a room, try to move the bed so he can see many people. If this is too difficult, mirrors in strategic places might enable him to see familiar faces and familiar activity.

A child with a long hospital stay, extended bed rest, or isolation might make a calendar to be hung on his or her bed or on the wall or table next to the bed. The days on the calendar can be crossed off, or the calendar made so the child can tear off a page each day.

For the child in bed who must lie flat, place a board beside the head he or she uses, on the bed. Positioning of the board might change according to the activity. For fingerpainting the board might be brought closer to permit the child to bend an elbow. In brush painting it might be more comfortable if the board were farther away so that the child might extend the arm. A youngster with a body cast might find his or her abdomen a perfect table in itself.

A child who is confined or immobile should have play that moves. Growing plants, particularly plants that he/she can start himself or herself, like a sweet potato, carrot, onion, or lima bean, or bulbs in gravel, are fascinating to watch. A poster can be made to chart the growth of the plant after it is measured each day. Fish, either a small fishbowl or an aquarium, also provide movement.

Whenever possible bed rest activities should be done with another child. In a hospital two beds can be pushed together, or the board placed on the bed should be arranged so another child can share it. When messy play is done in bed, lay a sheet folded in half over the original sheets. Then the mess can be picked up all together and easily cleaned. Paper should be attached to the board with tape, so the paper won't slip. This is especially useful if one hand can't be used (if it is in traction, for instance, or if the child has an I.V.). Two pieces of rolled masking tape can be crisscrossed to hold down a paper cup filled with paint or water.



## **The Very Sick Child**

If a child is very sick, and thought to be too sick to play, he might enjoy being "played for." In choosing play for this sick child, plan something new and exciting, something he has never seen before. Some suggestions might include: a bird puppet made for him to play with later; a hand puppet made from a small paper bag; blowing bubbles for him, and holding the bubbles to his ear so he can hear them; or planting plants, perhaps radishes on a blotter that will sprout in one day.

When playing for a very sick child, try to encourage him to help your playing by doing a part, even if it is a small part of the play, when he feels like it. For instance, he might make the eyes with magic marker on the bird puppet, paste on the last one or two pieces to the paper bag puppet, smash down the bubbles blown, saturate the blotter with water, or spread some of the seeds.

Play for the sick child, as well as the healthy child, is the means by which he learns. This learning should not stop when he is sick. Playrooms are safe and familiar areas where children can be themselves, where they can control and manipulate their environment to the extent their ages and personalities permit (Blumgart, 1964).

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"... to 'play it out' is one of the most natural self-healing measures childhood affords." — Erik Erikson. *Childhood and Society*, 1950.

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"Children's play has become not only respectable, but deemed worthy of intense, rigorous, scientific study." — Jerome L. Singer. *The Child's World of Make-Believe: Experimental Studies of Imaginative Play*. New York: Academic Press, 1973.

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# **Dynamics of Play for Learning**

**By Mary W. Moffitt and  
Rita Swedlow**

*Mary W. Moffitt is a Professor of Education at Queens College and Rita Swedlow Director of its Early Childhood Center.*

Nearly everyone agrees that the early years are important in developing intellectual and social competence, but disagreement grows as to what programs nurture the intellectual development of the young child.

As one group of researchers is eliminating play from the early childhood curriculum, another one is discovering play as a way of learning. As a result, the concept of play has become a great issue in early childhood education. Confusion and conflict have been generated. Those who hold that play is a nonproductive recreational activity fear that childhood may be dissipated in aimless play. They advocate formalized nursery-kindergarten programs. Some even want to teach reading to three-year-olds. However, an increasing number of educators, psychologists, and researchers consider play as a learning process and describe it as an essential part of the child's experience.

Perhaps the conflict has been intensified as a result of the "urgency for success" syndrome of the twentieth century and the knowledge that the early years are critical to learning. So intense has been the urge for academic achievement that education programs have been accelerated without paying enough attention to what research describes as the relationship of play to learning. This shortsightedness has taken its toll! Many children have been pressured into formal packaged programs and have been denied their right to play.

Ellis (1973) describes play as an enormously complex subject, an enigma that has puzzled man since antiquity. However, he states that education is coming to recognize that playful behavior is often motivated by an intense desire to learn accompanied by positive feelings of enjoyment and learning. He raises the seemingly logical question, "Why don't we teach as children seem to want to learn?" What is needed is a clearer understanding of the nature and function of play in the cognitive process.

Piaget (1952) has indicated that much of what we call play is really related to intellectual growth; through play the child learns to discriminate among various stimuli. As he/she assimilates these stimuli, he/she then learns to adapt or accommodate his behavior from the very first days of life. Variations the child may discover through experimentation permit him to



achieve cause-effect results. These he assimilates into his schema of experience.

Maw and Maw (1965) found that children with high curiosity made the greatest response when they could handle objects through play activities. They found a high correlation between play and information-seeking behavior. Ellis (1972) states that "Play is concerned with the development of capacity to deal with change," probably because the individual has the opportunity to exercise options in play situations.

Many observers of play note that children engage in a great deal of repetition. Piaget (1936, 1945) speaks of repetition as the way in which children practice skills. He claims that repetition seems to be an intentional part of play. White (1959) describes this urgency of doing something over and over again in the process of attaining a skill as "competence motivation." He argues that exploration, manipulation, and investigation are all part of striving for mastery. Gutteridge (1939) supports the idea of mastery by further suggesting that, after mastery of a motor skill, children tend to set challenges for themselves through elaboration and imagination.

Teachers of young children are continually amazed at the ingenuity of children in creating new challenges with well known materials. Anyone who has watched a child who has mastered going down a slide, then observed variations in the ways he uses the equipment, will understand children's inventiveness. Lieberman (1965) found that children who played with various materials had more divergent ideas about the materials that they used most frequently.



Ethnologists tracing play activities in various cultures have found them to be an important part of human existence. Since play is such a universal part of childhood, it might be considered an important part of development.

Cannon (1932) in his classic volume *The Wisdom of the Body* indicated that the body provides for self-regulation of the physiological processes. This means that the drives of an organism are generated by the need of the organism to maintain itself. The drive to play manifested by children may well be serving some need of the organism for physical and intellectual development. For example, it is well known that movement is necessary for growth of bone and muscle, and who can dispute the drive for movement of the young child? In play, children satisfy many of their needs for this development along with social and emotional satisfaction.

As a child crawls, climbs, runs, jumps, and moves in all directions, he practices different motor patterns that help to bring nerves, muscles, and bones under harmonious control. Play activities provide the momentum through which a child can make a balanced thrust towards maturation. Through mastery of his body, he develops a concept of himself as a person who can do things and who can cope with his environment.

Parents and teachers interested in a child's education should provide appropriate learning environments for the young. Instead of rushing children to achieve academic learning, they would do well to examine just what skills children gain through play and what ones they need to reach success in later school years.

## **RELATIONSHIP OF PLAY TO LATER SCHOOL ACHIEVEMENT**

The relationship of play activities to later school achievement has long been recognized. Katrina de Hirsch (1966) states that learning (reading in particular) rests on attitudes and competencies that develop at a much earlier age. She also states that many difficulties in learning to read and write arise from poor perceptual development, and that if a child's perceptual skills are not developed, his ability to acquire information may be affected.

Upon examining various subject areas and listing the skills needed for school success, it becomes apparent that many play activities are related to perceptual development:

### **Reading Skills**

Visual and auditory discrimination  
Percepto-motor skills  
Hand-eye coordination  
Ocular efficiency  
Ability to shift from whole-part and reverse  
Figure-ground discrimination  
Body image-laterality/directionality

### **Related Play Activities**

Music, rhythms, running, jumping, creeping, dramatic play, fitting objects into other ones, taking things apart and putting them together, throwing, catching, pasting, using puzzles.  
Sorting and matching; using discrimination of size, shape, color, sound, smell, taste. Ordering objects or placing them in sequence of length, height, etc.

**Science Skills**

Observing, comparing, describing  
classifying, hypothesizing, testing.  
Development of spatial relationships  
of size, shape, position, distance.  
Shift from whole to part and reverse.  
Hand-eye coordination.

**Related Play Activities**

Selecting and identifying properties  
of matter through sensory discrimination.  
Fitting objects into things,  
taking objects apart and putting  
them together. Constructing with  
wood, blocks, etc. Using manipulative  
materials. Ordering and grouping  
of objects.

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**Mathematic Skills**

Matching one-to-one correspondence.  
Grouping (sets), classifying according  
to size, shape, color, number,  
etc.  
Seriation or sequencing of objects.  
Whole-part discrimination (fractions,  
ratio)

**Related Play Activities**

Using manipulative games of all  
kinds. Matching and sorting materials.  
Taking things apart and putting  
things together and construction of  
all kinds. Playing with blocks noting  
equivalence, balance, etc.

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**Writing Skills**

Visual discrimination.  
Hand-eye coordination.  
Grasping as part of motor development.  
Spatial orientation — noting size,  
shape, distance, direction, etc.

**Related Play Activities**

Painting, pasting, using clay. Constructing  
with wood, blocks, etc. Using manipulative  
games, puzzles. Involvement with motor  
activities of all kinds.

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**PERCEPTO-MOTOR SKILLS****Body Image**

A child must be able to visualize his body as an object in space. Cruickshank (1963) has expressed the belief that unless a child has a coherent understanding of his body image, learning to read and process numbers does not take place. The child must develop a realistic concept of body size and the amount of space needed for performance of a variety of activities. One may notice this awareness by observing whether the child tries to crawl through a space that is too small for his body, or how he moves around objects in a room. Is he able to produce efficient movement in space? Laterality is an internal sense of his body schema. Directionality is an external referent by which a child learns to accommodate himself in relation to other objects in space. As he learns to use his body in creeping, crawling, jumping, reaching, climbing, he not only learns to synchronize movement but he becomes oriented to his environment.

**Perception of Space**

Development of spatial awareness requires a system for delineating movement within vertical and horizontal coordinates, not only of one's body

but in reference to the position of objects. Length, height, area, and volume are aspects of spatial measurement learned in many play activities such as building with blocks, use of wheel toys, painting (paper is prescribed area), sand and water play, putting objects into things of various sizes. Experience with space in all kinds of situations helps a child organize space into a cognitive system of up, down, left, right, front, and back.

Children explore space in many ways. McCaskell and Wellman (1937) describe how children by the age of 38 months were able to go up a ladder with facility, but it took 9 months more before they could descend with the same proficiency. They claim that "upness" is developed before "downness" and that children delayed in going down the ladder probably because it requires greater kinesthetic judgment to know where to put one's foot downward.

### **Motor Patterns**

Running, jumping, stair climbing, skipping, hopping, throwing, catching are some of the directed actions involving various motor patterns. Developing efficient command of his body, according to Barsch (1967) is the "ultimate intent in human design." He claims that it is through movement "that man expresses intelligence. The dynamic functioning of one's body enables the individual to be a planner, promoter, architect, organizer, and executor because he is capable of motor planning."

### **Ocular Patterns**

A child has to develop ability to focus on objects at various distances such as near space, mid-space, and far space (Barsch 1967). Many activities, such as steering a wagon, throwing a ball, and judging distance to jump, are involved in adjusting to different focal distances.

Catching a ball requires that a child be able to follow the glide path of a ball to his hands. This skill is dependent upon convergence of the eyes to the object. Gutteridge (1939) found that many children below the age of six are unable to perform efficient catching.

Many play activities such as steering a wagon, pushing a toy across the floor, and following a paintbrush across the paper with the eyes are related to rhythmic scanning, which is so important for reading.

### **Hand-eye Coordination**

Manipulative activities of all kinds such as woodworking; building with blocks; crayoning, painting, modeling, cutting and pasting, and many other activities provide for competence in this highly important skill. The use of tools for the extension of the arm and hand have implications for writing. Barsch (1967) states that hands become a major tool for executing one's perception. "Visual-motor perception depends on hand movements to determine visual-motor adequacy." Using scissors and grasping a hammer or a paintbrush are related to this ability.

### **Figure-Ground Discrimination**

This type of discrimination is related to sensory stimuli. What does a child select to look at, touch, smell, taste, or hear? What a child selects to attend to will stand out as "figural," and other details will form the background and will tend to lack clarity and significance. For some children figure-ground discrimination is confusing. Much of the child's selective process

will depend upon his ability to concentrate and hold the figure in his mind. Some children find it difficult to separate certain aspects of what they perceive. Frequently, a child may select one feature and become, as Piaget says, "centrated," and fail to analyze what he sees.

### **Configuration**

Problems of configuration may occur if a child does not have a clear picture or sensation in his mind. When children look at pictures or puzzles that are embedded in considerable detail, they may not be able to distinguish the figure from the background. Some difficulties are exhibited in perceptual tasks according to Vernon (1966) when figures are not clearly set apart from each other.

### **Symbolization**

Reading is basically a decoding of symbols that represent sounds. It is important that children develop some understanding of symbolism. Painting is particularly useful in learning to represent objects, ideas, and people in the form of symbols. The translation of three-dimensional objects into two-dimensional representation is a process according to Lowenfeld (1970) in painting, use of clay, and other media. Through developing his own symbols in line and form, a child may readily process more abstract symbols such as words and letters.

### **Whole-Part Discrimination**

In reading a child must be able to look at a word and also at the individual letters that compose the word. Elkind (1964) in a study in perceptual development found that young children tend to focus on either the whole without seeing the elements within or on one detail without seeing the whole. Not until children are around five to seven years of age are they able to describe both the whole and the parts. Children need many opportunities to take things apart and put them together. Construction with all kinds of materials, play with blocks, painting, and modeling with clay offer many opportunities for children to develop ability to shift from whole to part and the converse.

### **Classification and Seriation**

Classification and seriation are cognitive processes resulting from a child's ability to perceive attributes of materials and organize them in some relationship. Matching and sorting seems to be a type of activity that most children tend to do with various kinds of materials. They may sort according to color, size, texture, or other qualities. Visual discrimination is basic to the development of such skill. Many concepts in science and mathematics are dependent upon the ability to classify materials according to various attributes or put them in different kinds of ordered arrangement.

Many other perceptual skills exist, and play activities in a well planned program provide for an environment in which children can develop them. A serious student looking at play will see children moving carefully among block structures or he may note how they will select an appropriate-sized block to span a space between two upright blocks. Fine muscle control may be seen as a child carefully adjusts or centers a block indicating his cognitive awareness of alignment to achieve stability.

Organizing and sequencing may be observed when children create different patterns and the patterns are duplicated to make a continuum of



design. Watch how children use paint with form, color, and line to symbolize experiences, people, and images recalled from past experiences. These activities promote the development of visualization, an important part of the percepto-cognitive system. Without visualization words would have little meaning in the reading process.

### **And So To Play**

Nothing has been found to take the place of play in developing intellectual competence, as a learning process, or in information-seeking behavior. It is a medium for sustaining interest and mental energy as a child becomes involved in developing ideas with various play media. Social and emotional and physical values accrue from play as well. A child is a total entity, and when there is a fusion of all aspects of his development he becomes a whole person.

When a child is engrossed in what he is doing, motivated through self-direction in solving problems, pursuing information, and creating challenges for himself, he is developing those qualities that parents and teachers seek for all children. More and more we are learning that play is essential for optimum development. Yes, children can develop with minimal play activities, but the question is, *what are they losing in the process?*

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# **Play: A Valid Educational Tool\***

By Anne Stokes

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In the whirlwind of educational innovation the traditional approach to early childhood education has often been viewed with contempt; and its main curricular component, play, has been questioned. However, much theory supports the rejustification of play as an educational tool.

Brian Sutton-Smith (1970), for one, has been important to the "play people." He has carefully defined four basic modes of knowing. From each one a specific kind of play emerges. What happens in each mode is a transformation, but the exact moment at which the actions become play is hard to pinpoint. Mode 1 is imitation, copying the world. Mode 2 involves exploration, analysis, and examination of the world. Mode 3 is testing play with an "I can do it!" motivation and an effort to compete that results in an ability to predict and learn from consequences. Mode 4 is model construction in which the child furthers his understanding by synthesizing and putting together the elements of his world.

\*This piece is excerpted from a longer article on research in the preschool classroom by Ms. Stokes scheduled to appear in a 1975 issue of CHILDHOOD EDUCATION.



For the child the modes of knowing can merge into play and may be inseparable from it. Who can define play exactly, and that magic moment at which the intellectual act becomes also a playful one? However, between the two exist powerfully interrelated cognitive implications.

The Piagetian view of play is also important to know if an effort is to be made in understanding the educational value of play. According to Piaget, the individual is constantly striving to find an equilibrium between himself and his environment. Two processes are involved in this adaptive effort — assimilation and accommodation. In meeting a new experience, the individual first accommodates to the actual stimuli, taking in the event through his senses. The individual then assimilates the event, basing his reaction on the way the event makes him feel, his perception of the event. Equilibrium occurs when the individual has accommodated an event and then assimilated it, producing a new mental structure or schema. Play is almost pure assimilation and is a way of practicing that which one has met and come to know. Imitation is a continuation of accommodation and may go hand in hand with play as dramatic play. Of great importance is Piaget's belief that play is essential to the evolution of intelligence (Piaget, 1962).

Piaget divides play and games into several classifications in order to match them to developmental levels:

1. Practice games (or functional play) are the sensory-motor explorations of the infant.
2. Symbolic play occurs when a child substitutes a symbolic object for a real object. It progresses as he dramatizes the actions surrounding that object. Later, symbolic play incorporates true imitative behavior and reaches the highest stage of symbolic play, sociodramatic play.
3. Games-with-rules is the highest level of play and cannot occur until a child is able to relate to others and to verbalize and follow rules. This level of play continues to adulthood.

Play, therefore, is seen as a process that is part of the child's experiencing of the world, a process flowing from the other cognitive activities of his daily life. Play is an active, pleasurable, integrative part of a child's intellectual development. In playing, the child reduces the problems of his world to child-size pieces, acts out his solutions without threat or fear as well as practicing and maintaining fresh and retrievable responses.

Today research points to the fact that play, effectively employed, serves as a valid curricular tool. Many studies have been done supporting (a) the relationship between play and cognition and (b) the importance of dramatic play in improving problem-solving skills and helping children to accept responsibility. Another factor in play is play equipment and the importance of adult-child interaction in its use. Thomas Busse has directed some research to this subject.

### **Play Equipment and Adult-Child Interaction**

When Busse (1970)<sup>1</sup> researched the effect of environmental enrichment in a preschool compensatory program, he began with the hypothesis, long assumed, that the mere provision of a quantity of quality equipment would assure the development of self-reliance and initiative, and be supportive to sound physical and mental development. In his research, materials were

chosen to augment one or more of the following areas: verbal ability, performance ability, visual perception, auditory perception, and social interaction. Tape recorders, Polaroid cameras, books, magnets, puzzles, rhythm band instruments, records, dolls, and puppets were included in the \$1300 worth of equipment placed in the experimental classrooms. An effort was made to avoid duplications of control classroom equipment. The children's behavior was studied in relation to solitary play, cooperative peer play, and isolation. The ITPA and Wechsler were used for testing. In addition, the teachers were ranked according to their encouragement of the child in his use of the material as well as their effectiveness in fostering cognitive and perceptual learning.

Busse concluded that, taken as a whole, enrichment significantly altered the classroom environment. However, the controls scored higher on the cognitive and perceptual variables. It appeared to Busse that the teachers in the enriched classrooms stood back and expected the equipment to do the teaching. They interacted less with the children.

Busse noted that equipment is not creative in itself. However, the child's use of the equipment may be creative. Anyone who has seen a small child using a block for a car, pushing it through the dirt in which he has planted a jungle of small twigs and flowers, needs no one to convince him that the cost or complexity of play equipment is not necessarily important. The child can create from anything if he has reached that level of cognitive functioning. It appears, however, that some children need help in bridging the gap between the manipulative, functional stage of play described by Piaget and the symbolic stage. They find it difficult to link the world of action, the world of thought, and the world of words.

A study done by Levenstein and Sunley corroborates this viewpoint. In their study toys and books were especially chosen for their stimulus value, and mothers were instructed in ways of verbally interacting with the children as they were playing with the materials. A dramatic increase in I.Q. and verbal intelligence scores of the children resulted. Applying these findings to the classroom one might expect that verbal interaction between teachers and children during play would enhance learning. Levenstein's and Sunley's categories of verbal interaction between parent and child might be applicable to the classroom in the following fashion:

1. The teacher gives information about the color, size, form, name, or number of toys. ("Here is one blue car. It is made of wood.")
2. The teacher elicits a response from the child by questioning, relating the toy or activity to the child's own experiences. ("Is this like your car?")
3. The teacher describes what she is doing as she manipulates a toy. ("I'm driving a car down the road. Can you hear the motor noise?") The child is encouraged to imitate these expressions.
4. The teacher gives verbal encouragement, helps when needed, and reinforces social interaction. ("You're a good driver, Johnny. Can you get over this bump? George would like to play with you.")
5. The teacher encourages reflection and divergent thought. ("What else could you use for a road to drive on? Can you think of other buildings

to put beside the road? What will happen if you drive so wildly and bump into the other buildings?")

6. The teacher encourages classification skills. ("Are there other cars on the shelf? How many are big and how many are little?")

All too often in the past some teachers of young children have thought of the play period as a sort of "recess" time — a time for teachers to get a few housekeeping tasks out of the way and perhaps even take a breather from more structured teaching. Research suggests that this may be the biggest mistake of the traditional early childhood classroom. Now it seems entirely possible that the difference between cognitively productive play and play that does not enhance cognitive growth lies in the way the teacher interacts with the child in play activity and in the choice of play materials.

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"We see the children repeat in their play everything that has made a great impression on them in actual life, that thereby abreact the strength of the impression, and so to speak make themselves masters of the situation." — S. Freud. *Beyond the Pleasure Principle*. London: Hogarth Press, 1948 (1920).

~ ~ ~

"Work is necessary for the integrity of the human spirit; and play . . . really re-creates. Work and play make it possible for us to live and to love, because they help to absorb the aggressive energy which would otherwise overwhelm us." — Karl Menninger. "Play." *Virginia Quarterly Review*, 1942.

~ ~ ~

"The paradox emerges that those who are the most creative and talented and to whom our inventive civilization is beginning to turn for its answers may in the long run turn out to be those who were, as children and still are as adults, the more intellectually playful and free-lancing, those who perhaps spent a considerable proportion of their time in trivially divergent activities." — Brian Sutton-Smith. *Speech to Nebraska Confederation in Early Childhood Education*. St. Louis, Missouri, June 1970.

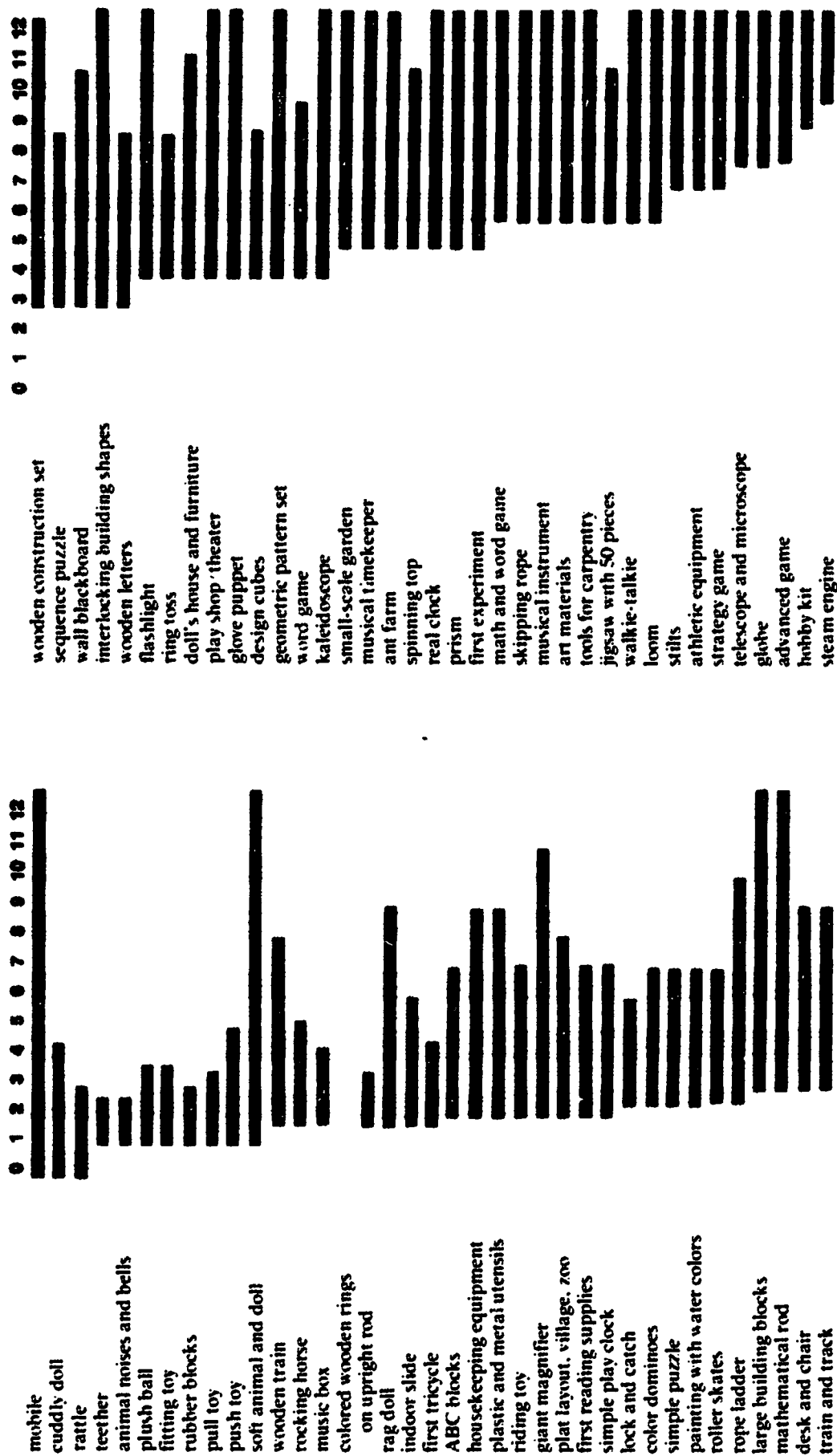
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"Play is seen as functioning in such a way that it prevents new abilities, both physical and mental, from being lost due to disuse." — J. Barnard Gilmore in *Child's Play*.



# Which Toy for Which Age?

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# ***A Guide to Play Materials***

**By Audrianna Allen and  
Elizabeth Neterer**

*Both Audrianna Allen and Elizabeth Neterer have enjoyed active careers as teachers and administrators in the Seattle, Washington public schools.*

**"Nowadays many toy makers claim their toys to be educational, but we believe that the one and only purpose of toys is to encourage young children to play. And play is the first and greatest educator of us all." — Editorial in Galt Toys Catalog. James Galt and Company Ltd. London, manufacturers of school equipment, toys, and teaching aids.**

## **DOES EACH PLAY MATERIAL YOU ARE CONSIDERING STAND UP TO THE QUESTIONS POSED HERE?**

***Does it meet the requirements of those using them as to size, form, indoor-outdoor possibilities, and the need for both learning and sheer fun?***

**Interest the children?**

**Adapt to more than one purpose, more than one child or more than one age level?**

**Withstand hard usage and weather?**

**Encourage action that can be completed in a relatively short time for younger children or challenge the ingenuity and perseverance of older ones?**

**Consider age differences?**

**Include a variety of homemade playthings using raw materials?**

**Permit graduated use for growing minds and bodies with a single play material such as blocks or paints; or with a series of related ones such as a kiddie kar, a tricycle, or bicycle?**

***Comply with safety and sanitation standards?***

**Is it easily cleaned?**

**Is it large enough so it cannot be swallowed?**

**Is it free from detachable small parts that can lodge in windpipe, ears or nose?**

**Is it made of unbreakable material?**

**Are there no sharp edges or points, exposed nails, sharp wires, or straight pins?**

**Is it labeled "non-toxic"? (Avoid painted toys for infants who put everything into the mouth.)**

**Is it free from parts that can pinch fingers or toes or catch hair?**

**Are the cords for crib toys no longer than twelve inches?**

***Help the child gain some competence for living in the world?***

**Build a variety of understandings at each child's level?**

**Further some of the skills of reading, writing, and figuring appropriate to the child's needs, interests, and abilities; contribute toward his readiness for the next step in this growth?**

**Invite exploration of the arts and sciences?**

**Develop strength and skill together with hand-eye coordination?**

***Strengthen good relationships with other people?***

**Offer opportunities to consult, converse or correspond with others?**

**Provide for both social and independent activity?**

***Arouse wonderment, imagination or creative thinking?***

**Promote constructive expression of feelings, thoughts, and ideas?**

**Please the eye in line, color, proportion, and general appearance; the ear in sound; the hand in feeling?**

**Suggest experimentation?**

**Help children relive and clarify their experiences?**

**Make possible opportunities for children to feel good about themselves when they do their own thinking?**

***Justify its cost in quality rather than quantity?***

**Compare favorably in price to similar articles by other manufacturers?**

**Represent exactly what the manufacturer claims in ease of assembling and using?**

## **WHAT KINDS OF PLAY MATERIALS SHALL WE OFFER CHILDREN?**

***The infant, newly arrived and ready to be introduced to the world, needs***

***play materials that attract the eye, tickle the ear,***

***and tempt the reaching muscles:***

**strings of colored plastic beads**

**spools or buttons**

**on cords**

**crib mobiles**

**rattles**

**large plastic rings**

**floating bath toys**

***The sitter-upper has strengthening eyes and muscles that urge him to get better acquainted with his new world. His play materials must be sanitary, smooth, non-toxic, durable, and without detachable parts to get into throat.***

# **Play Materials for Infants-Ones-Twos**

Who play alone, and  
side by side

Who are self-centered  
and possessive

Who exhibit incessant  
random motion

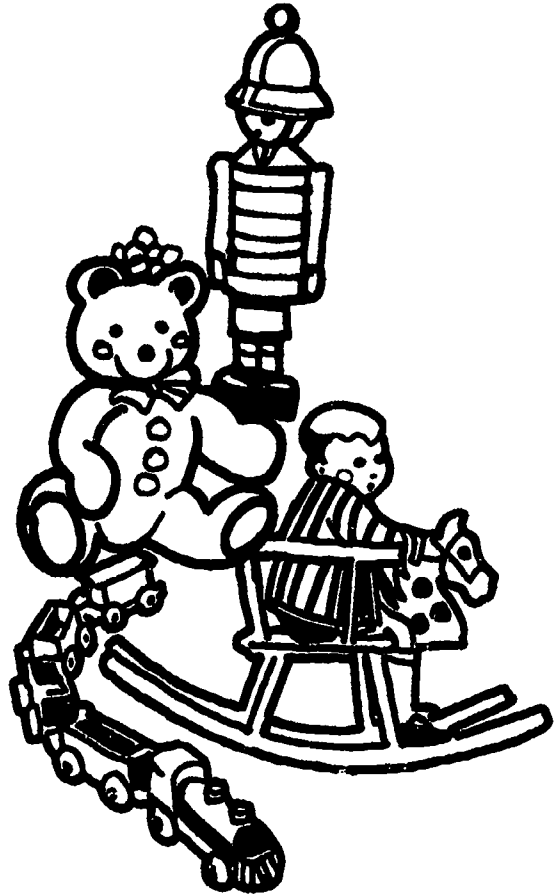
Who look, listen, feel,  
Reach, grasp, hold,  
Pick up, carry,  
and drop

Who put into, take out of  
Take apart,  
Put together,  
Push, pull, and drag

Who rock, crawl, bounce,  
Jump, climb, and throw

Who like to test muscles

Who have a wide open curiosity



nose, or ears. A safe place to explore his playthings is imperative. The  
sitter-upper needs

*play materials that appeal to the senses and muscles:*

Soft playthings for throwing  
light plastic blocks  
washable unbreakable doll  
tinkling bells, musical rattle  
tissue paper for rattling or tearing  
squeaky play animals without  
removable mechanism

nests of hollow blocks or boxes to  
pull apart and put together  
empty containers with removable  
lids to take off and put on  
playthings in boxes or baskets for  
putting-in and taking-out  
floating bath animals

The toddler experiments continually to see what he can do with his newly discovered muscles and to find out how things work. His play materials must be sturdy and of simple construction — playthings that can be taken apart, put together, dragged, and pushed about. A variety of play materials is desirable, but very few should be available at a time. The toddler needs

*play materials that challenge growing powers:*

- |                                                                                                                                                                  |                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| large, soft ball to push, lie on, or roll over                                                                                                                   | sand pile with bucket, scoop and other sand playthings                                                                                                                                             |
| Large colored nesting blocks (with rope handles in the side) to serve for piling up, for seats to sit on, for boxes to put things in, for conveyors for dragging | wagon or truck to ride in                                                                                                                                                                          |
| cartons or wooden boxes (without nails or splinters) to climb upon or into; hollow barrel to crawl through                                                       | small rocking horse or rolling horse                                                                                                                                                               |
| plank, slightly raised at one or both ends, to walk on, bounce on, and jump off                                                                                  | play materials for reliving what has been enjoyed in real life, such as household articles, unbreakable dishes, simple, sturdy garden tools, autos, planes, doll, stroller, telephone, small chair |
| large hollow blocks and small floor blocks to carry and pile up                                                                                                  | well made picture books with many pictures, simple stories, nursery rhymes                                                                                                                         |
|                                                                                                                                                                  | scrapbooks                                                                                                                                                                                         |
|                                                                                                                                                                  | large crayons for marking                                                                                                                                                                          |
|                                                                                                                                                                  | cuddly play animals                                                                                                                                                                                |
|                                                                                                                                                                  | tom-tom, bells, music box                                                                                                                                                                          |

The two-year-old with increasing motor independence is perpetually on the move, rapidly gaining strength which he must test. He is involved in all kinds of exploratory pursuits to satisfy his wide open curiosity. The two-year-old needs

*play materials for developing large muscles:*

- |                                       |                                          |
|---------------------------------------|------------------------------------------|
| steps for climbing                    | large hollow blocks to carry and pile up |
| barrel to climb through and roll over | large balls                              |
| Kiddie Kar                            | push-and-pull play materials             |

*play materials for stretching the mind:*

- |                                                             |                                              |
|-------------------------------------------------------------|----------------------------------------------|
| put-together train, truck, boat, or other similar plaything | large wooden beads (colored)                 |
| easy wooden inlay puzzles, 3-6 pieces                       | peg board with colored pegs                  |
| nest of blocks                                              | wellmade picture books                       |
| color cone                                                  | books with nursery rhymes and simple stories |

*play materials for pretending:*

- |                            |                                                            |
|----------------------------|------------------------------------------------------------|
| housekeeping equipment     | costume box with such simple properties as hat, purse, tie |
| washable, unbreakable doll | ride-a-stick horse                                         |
| cuddly play animals        |                                                            |



*play materials for expressing feelings:*

large crayons  
brush-painting materials including  
large brush and large paper  
materials for hand painting, mudpie  
making  
clay modeling

sand and sand-play materials  
rocking chair  
small rocking horse, rolling horse  
mallet and wooden pegs  
tom-tom, bells  
xylophone, music box

# **Play Materials for Threes-Fours-Fives**

Who become interested  
in playing with others

Who use large muscles  
quite well, and who are  
beginning to control  
smaller ones

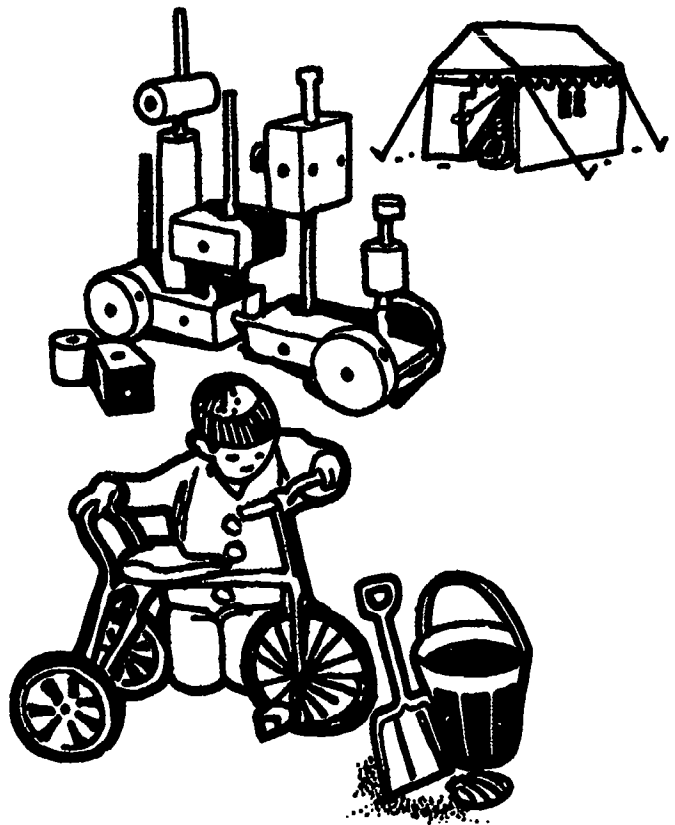
Who enjoy climbing,  
running, and jumping  
with a purpose

Who need opportunities  
for self-help

Who have difficulty  
distinguishing between  
fact and fantasy

Who have spotty  
information

Who like to build with blocks  
experiment with musical  
instruments,  
enjoy representative play



The threes-fours-fives are beginning to control fine muscles while the large ones are still growing. Children are showing interest in people other than themselves and are beginning to reach out to the world beyond the home. The threes-fours-fives need

***play materials, games, and apparatus for strengthening large muscles:***

climbing tower, turning bars,  
crawling-through apparatus  
wagon (large enough to hold a child),  
tricycle (of correct size)  
bouncing horse  
push-and-pull play materials for  
younger children  
jump ropes for older children  
large balls

paddle with ball attached  
beanbags  
simple throwing games  
simple rolling games  
ten pins  
large hollow blocks  
mallet with peg set for younger  
children, work bench with  
real tools for older children  
large floor blocks to lug and carry  
and to build large structures

***play materials that stretch the mind:***

lock with key  
magnet  
aquarium, terrarium  
water play materials  
bubble set  
inlay puzzles, 8-20 pieces  
matching picture games

viewmaster with slides, filmstrips  
globes for older children  
books with simple stories, poems,  
jingles, nursery rhymes  
picture books

***play materials for representative play:***

washable, unbreakable doll that can  
be dressed and undressed  
housekeeping equipment of all sorts  
including cooking, laundering,  
gardening  
costume box for "dress-up" clothes  
space hat  
assorted floor blocks with small  
family figures

play luggage  
farm and zoo animal sets  
transportation play materials;  
boats, trucks, planes, trains,  
autos  
steering wheel  
ride-a-stick horse  
sheet or blanket for play tent  
large cartons for making stores,  
houses, stations and for climbing  
into  
assorted blocks with animal and  
family figures, trucks and other  
transportation vehicles

***play materials for expressing feelings:***

crayons  
painting materials with large brush  
and paper  
hand-painting materials  
blunt scissors and paste  
clay  
hammer, nails and soft wood  
large wooden beads for younger  
children, smaller beads for older  
ones

sand and sand-play materials  
wading or swimming pool  
rocking chair  
cuddly play animals  
puppets (stick and hand)  
musical top, music box, record  
player  
percussion instruments such as:  
tom-tom, bells, triangle finger  
cymbals, gourd tone block  
space hat, fireman's hat, work-  
man's helmet

# Play Materials for Sixes-Sevens-Eights

Who are learning more  
about teamwork

Who have fairly good  
control of small muscles

Who attempt most  
anything

Who are very  
imaginative

Who begin to make  
practical use of skills  
in reading and writing

Who like magic, comics,  
simple table games,  
puzzles, and collections

Who enjoy puppetry,  
jump ropes, hopscotch,  
skates, digging, building,  
constructing

Who are collecting such things as  
insects, bottle tops, stores,  
"fan" cards.



**The sixes-sevens-eights have gained fairly good control of small muscles and can coordinate hand and eye to an increasing degree. The world is an interesting place for them and they are willing to attempt almost anything. The sixes-sevens-eights need**

***play materials, games, and apparatus  
for strengthening the muscles and developing skills:***

|                                          |                                          |
|------------------------------------------|------------------------------------------|
| <b>trapeze, horizontal ladder</b>        | <b>jump ropes, hoops, marbles, pogo</b>  |
| <b>climbing apparatus (knotted rope,</b> | <b>stick, kite</b>                       |
| <b>rope ladder, climbing tower)</b>      | <b>bicycle, wagon, sled, skates</b>      |
| <b>tumbling mat</b>                      | <b>swimming accessories such as life</b> |
| <b>tire swing</b>                        | <b>jackets, inflatable animals for</b>   |
| <b>punching bag</b>                      | <b>water play</b>                        |
| <b>balls, beanbag games, ring toss</b>   | <b>garden tools and speed jackets</b>    |
| <b>games</b>                             |                                          |

***play materials and games for stretching the mind:***

|                                           |                                            |
|-------------------------------------------|--------------------------------------------|
| <b>magnets, thermometer, magnifying</b>   | <b>checkers, parcheesi</b>                 |
| <b>glass, soap bubble set, balloons</b>   | <b>viewmaster, slides; films, film-</b>    |
| <b>clock dial, abacus, cash register,</b> | <b>strips</b>                              |
| <b>weighing scales, number games</b>      | <b>globe of the world</b>                  |
| <b>anagrams, lotto, alphabet sets,</b>    | <b>chalkboard, flannel board</b>           |
| <b>printing sets, typewriter, puzzles</b> | <b>books: some to read, some for being</b> |
| <b>including map inlay puzzles</b>        | <b>read to (poetry and stories)</b>        |

***play materials for make-believe:***

|                                               |                                            |
|-----------------------------------------------|--------------------------------------------|
| <b>playhouse easily converted into store,</b> | <b>dolls from other parts of the world</b> |
| <b>school, theater, club room</b>             | <b>transportation vehicles: boats,</b>     |
| <b>costumes for "dressing-up"</b>             | <b>trains, planes, dump trucks,</b>        |
| <b>dollhouse, doll furniture</b>              | <b>tractors</b>                            |
| <b>boy and girl dolls</b>                     | <b>play circus</b>                         |
|                                               | <b>puppets</b>                             |

***play materials to satisfy that urge to create  
and to express feelings:***

|                                              |                                         |
|----------------------------------------------|-----------------------------------------|
| <b>crayons, paint, colored chalk to use</b>  | <b>workbench with real tools</b>        |
| <b>on paper</b>                              | <b>construction sets, design blocks</b> |
| <b>materials for paper sculpture, clay</b>   | <b>melody bells, resonator bells</b>    |
| <b>sewing kit including cloth for making</b> | <b>marimba, xylophone</b>               |
| <b>doll clothes, tape measure</b>            | <b>percussion instruments</b>           |
| <b>simple weaving materials</b>              | <b>record player</b>                    |

# **Play Materials for Nines-Tens-Elevens**

**Who work well in teams**

**Who are always on the move**

**Who engage in active, rough-and-tumble play**

**Who are avidly  
exploring and  
discovering**

**Wh. have community  
interests**

**Who are loyal  
to country**

**Who like clubs, trips,  
pets, comics, crafts,  
and musical instruments**

**Who have little use for  
the opposite sex**



**The nines-tens-elevens are always on the move, avid for exploring and discovering. Gangs and clubs are very important to them. Boys have little use for girls or "sissy" things; but girls often enjoy boy stories, toys, and games. The nines-tens-elevens need**



**materials for developing teamwork  
and for contributing to "club" interests:**

baseball, bat, gloves  
basketball equipment  
football  
tennis ball and racquet  
badminton set  
table tennis set

croquet set  
shuffleboard  
gardening tools  
camping equipment  
beach and water balls

**games and apparatus for maintaining muscle tone  
and for perfecting skills:**

trapeze, horizontal ladder, rings  
climbing rope  
tether ball, boxing gloves  
dodgeball

bicycle, skates (roller and ice)  
skis, sled  
jump rope

**materials for creating  
and for building confidence and self-esteem:**

clay, paints, crayons  
craft sets: leather, plastic, metal,  
stenciling on fabric  
shell jewelry set  
basket making  
beadwork  
tools, lumber, and wheels for mak-  
ing vehicles boys can drive  
models for making rockets, planes,  
trucks, ships

fishing equipment  
camera  
puppets  
character dolls and materials for  
making doll clothes  
harmonica  
musical instrument (at this age  
children are interested in music  
lessons)  
record player

**materials for stretching the mind:**

microscope, magnifying glass, bi-  
noculars, telescope  
batteries, electrical bell, switches,  
electrical cord  
strong magnets  
kite  
meter stick, tape measure (steel  
and cloth), number line, pro-  
tractor  
speedometer, micrometer, barom-  
eter  
stopwatch, electric clock, alarm  
clock, sundial, 3-minute egg glass

scales  
compass  
models of geometric figures  
chess, dominoes, checkers  
slides, films, filmstrips, globe,  
maps, chalk board  
hobby sets: stamp collector's  
album, rock-hound sets  
jigsaw puzzles  
books of reference: simple science  
and math, travel, exploration,  
adventure, discovery, invention  
typewriter  
live pets

# Good Films on Play

\*Films marked with an asterisk are listed in *Films for Early Childhood, A Selected Annotated Bibliography* by Mariann Pezzella Winick. (These are films about, not for, children.) Early Childhood Education Council of New York City (EEEC). 1974. 196 Bleecker Street, New York, New York 10012. \$3.50.

- \**Adventure Playground*. 7 min., 16 mm, b & w and color. Firebird Films. Distributed by New York University Film Library, 26 Washington Place, New York, NY. 10003.  
Film made in England, but typifies the early Swedish concept of a playground that grows and develops as the children play and create in it. Rental fee, \$7.00.
- Blocks: A Medium of Perceptual Learning*. 17 min., 16mm, color. Queens College. Distributed by Campus Films, 20 West 46th Street, New York, NY 10017.  
Points up some of the many learnings inherent in playing with blocks. Rental fee, \$20.00.
- \**Children Growing Up — All In the Game*. 26 min., 16 mm, color. BBC TV-Time Life Films, 43 West 16th Street, New York, NY 10011.  
Play as a synthesizer. Rental fee, \$30.00.
- \**Children's Play*. 27 min., 16mm, b & w. McGraw-Hill. Distributed by New York University Film Library.  
Different types of play in the life of the child along with the implications of the activities. Very simply presented. Rental fee, \$9.50.
- \**Dramatic Play: An Integrative Process for Learning*. 32 min., 16mm, color. Queens College. Distributed by Campus Films.  
Explains the range and possibilities of dramatic play in a nursery-kindergarten setting. Rental fee, \$20.00.
- How To Solve a Problem*. 12½ min., 16mm, color. BFA Educational Media, 211 Michigan Avenue, Santa Monica, California 90404.  
Shows how children in their play exhibit marvelously creative ways of solving their problems. Rental fee, \$8.00.
- The Moot Monster*. 13 min., 16mm, color. Campus Films.  
Shows how a teacher clarifies and facilitates play as four- and five-year-old boys play out a frightening dream of one of the boys about a sea monster. Rental fee, \$15.00.
- \**My Own Yard To Play In*. 8 min., 16mm, color. Edward Harrison. New York University, New York, N.Y.  
Children at play in city streets, parks, and neighborhoods. Rental fee, \$8.00.
- \**One Potato. Two Potato*. 24 min., 16 mm, b & w. BFI Contemporary. McGraw-Hill, 324 West 42nd Street, New York, NY 10036.  
Deals with some of the universals of childhood — songs, play, skills, and lore. Rental fee, \$12.50.
- \**Organizing Free Play*. 22 min., 16mm, b & w. New York University (Head Start MTD #90531).  
Scenes from a variety of Head Start programs in which the structure of "free play" is considered. Rental fee, \$7.00.
- \**Outdoor Play*. 32 min., 16mm, color. Queens College. Distributed by Campus Films.  
An overview of five-year-olds engaged in a variety of activities. Rental fee, \$20.00.
- Play in the Hospital*. 50 min., 16mm, color. Campus Films.  
The therapeutic value of play is presented vividly as children play out experiences they have had as patients. Shows how play activities in the hospital foster independence. Rental fee, \$20.00.
- Role Enactment in Children's Play — A Developmental Overview*. 29 min., 16mm, color. Campus Films.  
Presents the developmental aspects of role enactment of children ranging in age from two to eight years. Rental fee, \$20.00.

*Springs of Learning — Playing Together* (Preschool children). 30 min., 16mm, b & w. BBC TV-Time Life Films.

Designed to help the general public understand the preschool child, his development, needs and abilities. Rental fee, \$30.00.

\**Understanding Children's Play*. 11 min., 16mm, b & w. Caroline Zachry Institute of Human Development, New York.

An old film but one that carries a strong message in relation to values of different types of play activities in the nursery school. Stresses observation of play as an important factor in learning about children. Rental fee, \$7.00.

*Water Play for Teaching Young Children*. 17 min., 16mm, color. Vassar College. Distributed by New York University Film Library.

Helpful suggestions on the role of the adult in this ever popular activity. Rental fee, \$20.00.

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